

**STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION**

In the Matter of:	)	Docket No. 03-IEP-01 and
	)	03-RPS-1078
Informational Proceeding and	)	NOTICE OF COMMITTEE WORKSHOP
Preparation of the 2004 Integrated	)	RE: Accelerated Renewable
Energy Policy Report (IEPR) Update	)	Energy Development
_____	)	

**Comments  
Of  
The California Municipal Utilities Association**

Attached for the record is a summary of renewable programs of California's publicly owned electric utilities. Also attached is a request we made in last years proceeding to broaden the review of the California renewable program. We renew that request.

Respectfully submitted

Jerry Jordan  
Executive Director

MEMBER	Population	Established	Program
=====	=====	=====	=====
ALAMEDA	74,259	1887	40% by 2017, currently 50% eligible renewable, 80% renewable
ANAHEIM	336,000	1895	Min 15% goal 20% by 2017, currently 1% eligible
AZUSA	45,000	1898	20% by 2017
BANNING	26,000	1895	Considering 20% by 2017, under review by Utilities Board
BIGGS	1,400	1904	20% renewable goal as resources added
BURBANK	103,000	1913	20% by 2017, 'Looking at a 20 MW in the Pacific NW.
COLTON	17,631	1897	15% by 2017, currently 5%
CORONA	142,000	2003	Newly formed, awaiting information
GLENDALE	200,000	1913	20% eligible by 2017, 20% of PBC. Will increase goal to 23%
GRIDLEY	4,000	1910	20% goal, will seek eligible renewables as resources are needed
HEALDSBURG	10,017	1909	80% renewable, 53.2% eligible renewable
HERCULES	23,000	2002	Newly formed, awaiting information
IMP IRRIG DIST	23,000	1936	Contracting for 170 MW og Geothermal
INDUSTRY		2003	Newly formed, awaiting information
LASSEN MUD	25,000	1987	Awaiting information
LODI	58,850	1910	Currently 48% renewable, 25 % eligible, maintain at least 20%
LOMPOC	43,284	1923	1% a year until 20% limited to PBC investment
LOS ANGELES DWP	3,800,000	1925	Will meet half of LA's load growth through renewables and energy efficiency. May be replaced with 20% by 2017 which is currently . pending approval. Will subsidize 25% of cost above alternative sources
MERCED IRRIG DIS	120,000	1996	Board resoulution calls for 15% renewable within 10 years. Will procure 5mw of wind within next two year which will bring them to 20% renewable,
MODESTO I D	200,000	1923	20% by 2017
NEEDLES	5,930	1983	Awaiting information
PALO ALTO	61,500	1898	20% by 2015
PASADENA	134,800	1906	10% renewables by 2010, 20% renewables by 2017
PLUMAS SIERRA COOP	11,000	1937	Will have 20% renewable
REDDING	80,000	1921	20% by 2017
RIVERSIDE	262,300	1911	20% by 2015
ROSEVILLE	83,200	1912	20% by 2017
SMUD	1,202,100	1947	10% non hydro renewable by 2006, 20% by 2011
SANTA CLARA	102,985	1896	Currently 65% renewable, 26% eligible,
SHASTA LAKE	4,000	1948	35% renewable
TRINITY PUD	15,000	1982	100% renewable
TRUCKEE DONNER PUD	25,000	1948	Will not add resources until 2008, will seek to add qualifying renewables subject to PBC limitation
TURLOCK IRR DIST	185,839	1923	20% of eligible renewables by 2017, 1% per year from 2005
CITY OF UKIAH	15,000	1987	Currently 75% renewable, 53% eligible renewable
VICTORVILLE	69,077	2001	Newly formed, awaiting information
CITY OF VERNON	89	1933	Awaiting information
=====	=====	=====	=====
TOTAL	7,510,261		



# CALIFORNIA MUNICIPAL UTILITIES ASSOCIATION

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JERRY JORDAN, Executive Director

July 15, 2003

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1516 Ninth Street, MS-32  
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Dear Chairman Keese:

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I am writing to seek the Energy Commission's assistance in evaluating the full scope of an appropriate renewable policy for California. I was recently forwarded a copy of a Renewably Portfolio Standards survey sent by the Commission staff to publicly owned utilities. I have also recently reviewed the Energy Action Plan. CMUA is concerned that both documents seem to be based on certain conventions and assumptions regarding a sound renewable policy, without examination of those assumptions. We urge the CEC to provide the forum for a meaningful debate of this issue by broadening the scope of its *Public Interest Energy Strategies Assessment of the Integrated Energy Policy Report* to examine the underlying purpose of a renewable program and the full implications of that program.

Prior to dealing with questions about the renewable program, I want to emphasize that California's publicly owned utilities have a long history of support for renewable energy programs. Municipal utilities in California were in the vanguard of research on fuel cell technology. The Northern California Power Agency was created largely to invest in geothermal resources and also has built a large hydro facility. In fact NCPA has invested in 220 megawatts of geothermal resources and reinvested substantial money to pipe in treated waste water to re-inject into the steam field. The City of Los Angeles has recently announced plans for a 120 megawatt wind facility. The Southern California Public Power Authority has issued an RFP for renewable energy and is in the process of finalizing a 100 MW purchase of firmed wind energy. The Sacramento Municipal Utility District (SMUD) is in the process of expanding its existing 10 MWs of wind to a total of 85-100 MWs and has been a pioneer in trying to bring down the commercial cost of photovoltaic panels while trying to build solar PV to over 10 MWs in the SMUD service territory. Publicly owned utilities have paid for the full cost of development of hydro projects through federal agencies. Those

projects have not only provided low cost reliable power but have also provided inexpensive water supplies throughout the western United States. There are many more examples of publicly owned utility support for renewable energy that are literally too numerous to mention here.

The CEC renewables survey seeks to accumulate information about the existing renewable program. In addition, the Energy Action Plan has stated an intention to accelerate the goals of 20% “eligible” renewables from 2017 to 2010. All this is happening without specifying the policy purpose of the goal in SB 1078 that California is attempting to achieve. We believe the CEC would do a service to the Legislature and California consumers by using its considerable expertise to examine the underlying assumptions and purpose of any state renewable program. For instance, should the purpose of a renewable energy program be to provide fuel diversity; to improve air quality; to subsidize California industries; or to stabilize energy prices? If California is going to accelerate its renewable program we must first define what the program is intended to accomplish. The following questions at a minimum should be answered:

1. What should be the goal of a renewable program?
  - a. Is the goal fuel diversity?
  - b. Is the goal improvement in air quality?
  - c. Is the goal the support of specific commercial industries?
  - d. Is the goal low cost energy?
2. What is the public policy behind counting only small hydro projects and not large hydro as renewable? While large hydro projects may pose environmental challenges so may large wind projects. But shouldn't existing large wind and hydro projects be recognized for their contributions to renewable portfolios?
3. What is the public policy rationale for not counting all geothermal projects?
4. What are the cost implications and operational impacts associated with resources that have low capacity factors?
5. What are the land use implications of certain resources that require large amounts of land in comparison to other available technologies?
6. What is the impact of the renewable program on the transmission infrastructure; how does it relate to the ISO's Locational Marginal Pricing proposal. For example, will certain resources be afforded “must run” status?
7. Will over reliance on intermittent resources require increased development of gas projects to firm up the energy from the intermittent resources?

William J. Keese, Chairman

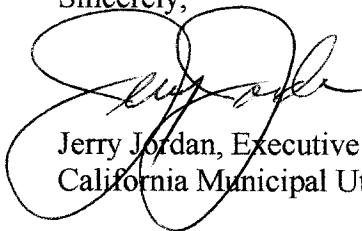
July 15, 2003

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8. To what extent does renewable energy "compete" with energy conservation efforts? Which is the better investment if there is a competition?
9. Is there reliability or other impacts on very small utilities that are different from other utilities implementing the state goal? For example, what if large percentages of the power portfolios of small utilities are already made up of one resource, such as hydroelectric power?
10. Does it make sense for utilities that do not need to add generation to pursue the state goal?
11. How would a newly formed electric utility go about meeting the state goal?

The CEC is uniquely qualified to examine the comprehensive policy issues surrounding renewable technologies including the cost implications and land use impacts. Renewable technologies have always been an important part of publicly owned utility portfolios and will continue to be so. It is important, however, that state policy be based on sound principles and consider all aspects of the policy. Thank you for your consideration of this matter and the continued discussion of this important issue. I would be happy to discuss this issue with you at your convenience.

Sincerely,



Jerry Jordan, Executive Director  
California Municipal Utilities Association

cc: CEC Commissioners  
CPUC Commissioners  
California Power Authority Board Members  
Senator Debra Bowen  
Senator Byron Sher  
Assemblywoman Sarah Reyes

# NCPA Member Renewable Portfolio Preliminary

Member	RPS Policy In Place	% in Renewable Power	Current Mix	MW Planned Additions									
				B	G	SH	LH	L	R	S	W	GSHP	Total
Alameda Power & Telecom	Jan-03	86	G, SH, LH					9.0				8.0	17.0
BART	*	32	G, B, SH, LH, S, W										
Biggs	May-03	79	B, G, SH, LH										
Gridley	Mar-03	77	B, G, SH, LH										
Healdsburg	Not Passed Yet	85	B, G, SH, LH, S, W										
Lassen MUD	Not Passed Yet	32											
Lodi	Apr-03	56								0.8			0.8
Lompoc	May-03	32	B, G, SH, LH							0.8			0.8
Palo Alto	Oct-02	5	B, G, SH, R, S, W					0.5		0.8	25.0		26.3
Placer County Water Agency	*												
Plumas Sierra	Oct-03	76	B, G, SH, LH, S, W								10.0	0.2	10.2
Port of Oakland	Not Passed Yet	32											
Redding	Jun-03	48	B, G, SH, LH, W							0.8	10.0	0.2	11.0
Roseville	Feb-03	57	B, G, SH, LH, W					3.0		0.8	10.0		13.8
Silicon Valley Power	Apr-03	62	B, G, SH, LH, S							0.8	10.0		10.8
Truckee-Donner	Feb-04	0									10.0	0.2	10.2
Turlock Irrigation District	Feb-04	40	B, G, SH, LH										
Ukiah	Dec-03	89	G, SH, LH			3.0							3.0
NCPA Aggregate		103.6				3.0		12.5		4.5	83.0	0.6	103.6

B: Biomass  
 G: Geothermal  
 SH: Small Hydro  
 LH: Large Hydro  
 L: Landfill  
 R: Renewable Energy Credits (Green Tags)  
 S: Solar  
 W: Wind  
 GSHP: Ground Source Heat Pump  
 \* Not Required to Report

## *New Renewables*

### *Are the SCPPA Members Acquiring Their Fair Share?*

In September 2002, the Governor signed Senate Bill 1078 creating California's Renewable Portfolio Standard, requiring retail sellers of electricity to increase their procurement of eligible renewable energy resources by at least one percent per year such that 20% of their retail sales are procured from eligible energy resources by 2017.

How are the SCPPA public power members faring thus far in meeting this goal? Actually, they are doing quite well. After taking the relative size differences of the electric systems into account; i.e. the investor-owned utilities being much larger than the SCPPA member systems, the SCPPA members<sup>1</sup> have acquired 7.6 times as many renewables proportionately compared to the investor-owned utilities during the comparable time period.

#### **How can the relative performances be determined?**

The October 2003 report from the California Energy Commission (CEC) entitled; *Renewable Energy Program, Quarterly Report to the Legislature*, the section entitled "New Renewables Program" contains a summary list of the projects registered by the CEC since June 1999 indicating 328.89 Megawatts for the investor-owned utilities over the last 4 ½ years as follows:

**Table IV – New Renewables Program  
Summary of On-Line Projects (June 1999 to September 2003)**

<b>Technology</b>	<b>MW on-line</b>	<b># of Projects</b>
Biomass	11.30	2
Digester Gas	2.05	1
Geothermal	59.00	2
Landfill Gas	37.19	14
Small Hydro	11.25	2
Waste Tire	0	0
Wind	208.1	21
<b>Total</b>	<b>328.89</b>	<b>42</b>

The SCLPPA members represent about **16 %<sup>2</sup>** of the load in California.

Their proportionate contribution to the new renewables therefore would be:

$$328.89 \text{ MW} \times 16 \% = \underline{\underline{52.6 \text{ MW}}}$$

Current SCLPPA member renewable projects operating or to be operational within the next four years are as follows :

Project	Type of Project	Capacity – MW
LADWP Pine Tree Wind	Wind	120.0
LADWP BioConverter	Biomass	40.0
LADWP Micro Turbines	Landfill Gas	1.5
High Winds Energy Center	Wind	30.0
Colton Landfill Gas	Landfill Gas	1.3
Ameresco Landfill Gas	Landfill Gas	13.0
Burbank Landfill Gas	Landfill Gas	0.2
Riverside Geothermal	Geothermal	20.0
Riverside Landfill Gas	Landfill Gas	5
Riverside Wind	Wind	1.3
I.I.D. Salton Sea Unit 6	Geothermal	170
<b>Total</b>		<b>402.3</b>

The proportional contribution over the four year period would have been **52.6** Megawatts but going forward, over the same time period, the SCLPPA member systems will have actually acquired a total of **402.3** Megawatts of wind, geothermal, biomass and landfill gas projects.

This means that on a proportional basis the SCLPPA member systems have presently secured

### **7.6 times as much new renewables**

as the investor-owned utilities over the same 4 year time period with even more projects likely to be added in the future. (402.3 MW /52.6 MW)

*Note: Background is actual photo of High Winds Energy Center Project*

<sup>1</sup> The SCLPPA members include: Anaheim\*, Azusa\*, Banning\*, Burbank\*, Cerritos, Colton\*, Glendale\*, Los Angeles\*, Pasadena\*, Riverside\*, Vernon, and Imperial Irrigation District (\* Participating in projects listed in table above)

<sup>2</sup> The 2001 total system peak demands for all the SCLPPA members 8,649 MW. The California Independent System Operator reported system peak for all of California is approximately 54,000 MW. The SCLPPA contribution is  $8649/54,000 = \underline{\underline{16.0\%}}$

12/20/03

**SMUD EXISTING AND PLANNED RENEWABLES**  
(2/24/04)

<u>Existing On-Line</u>	<u>MW on-Line</u>	<u># of Projects</u>
Biomass		3
Snohomish (Wood)	36	
Carson (Anaerobic Digestion)	5.4	
Kiefer (Greenergy, Landfill Gas)	9	
Wind		2
Solano - (Owned on-line by 4/04, about 2 MW Greenergy)	15	
Solano – (Contracted – PPM)	50	
Solar		~900
Sacramento – Photovoltaics (DC)	10	
Small Hydro		6
UARP	47.5	3
Robbs Peak (29 MW), Jones Fork (11.5 MW), Camp Far West (7MW)		
CVP	4.32	2
Lewiston (.109 MW), Nimbus (4.219 MW)		
Washoe	1.14	1
Stampede (1.141 MW)		
<u>Planned or Projects Under Consideration</u>	<u>MW</u>	<u># of Projects</u>
Biomass		2
Direct Combustion	15	
Landfill Gas	6	
Wind		3
Stateline Green Tickets (2006 contracted delivery)	25	
Solano		
Owned	85	
Contracted	25	
Solar		+100
Sacramento – Photovoltaics (1 MW/yr through 2011)	8	

## INPUTS

### Existing Renewables

		2003	2004	2005	2006
Biomass	Kiefer (69 GWh not included since Greenergy)				
Biomass	Snohomish (at full dispatch)	250	250	250	250
Biomass	Carson Digester Gas	45	45	46	46
Wind	Solano Phase 1 (10 MW)	20	31	31	31
Wind	50 MW PPM Contract	70	153	153	153
Solar	Ranch/Hegde PV	2	2	2	2
Solar	PV Pioneer (5 MW est.)	4	4	4	4
Solar	PVP 1 (1.2 MW)	1	1	1	1
Small Hydro	UARP & CVP (estimate)	100	100	100	100
Total		493	587	588	588
% of Load		4.7%	5.5%	5.4%	5.3%

### Committed New Renewables

Wind	PAC Green Tickets (25 aMW)				219
Wind	Solano Phase 1A (5 MW)		15	15	15
Wind	25 MW PPM Contract			77	77
Total		-	15	92	311
% of Load		0.0%	0.1%	0.8%	2.8%

### Under Consideration

Solar	PV (1 MW/yr)		1	3	4
Wind	Solano (expansion to 50 MW)	0	0	0	107
Wind	Solano (expansion to 100 MW)	0	0	0	153
Biomass	Kiefer Landfill (6 MW)				
Biomass	Ione Project (15 MW)				
Total		-	1	3	265
% of Load		0.0%	0.0%	0.0%	2.4%

### Totals

Energy	493	604	682	1,164
% of Load	4.7%	5.7%	6.3%	10.5%

## SMUD RENEWABLES SUMMARY

Renewable Goals	2003	2004	2005	2006
	5%	7%	9%	11%
System Peak		2,865	2,926	2,989
System Load	10,583	10,602	10,840	11,103

<b>Cumulative Renewable Goal</b>		705	938	1,183
<b>Total Existing &amp; Committed</b>	493	603	680	899
% of Load	5%	6%	6%	8%
<b>Under Consideration</b>	0	1	3	265
% of Load	0%	0%	0%	2%
<b>Total Renewables</b>	493	604	682	1,164
% of Load	5%	6%	6%	10%

#### Procurement Targets

##### Existing & Committed

Cumulative	103	258	284
Annual	103	156	25

##### Including Under Consideration

Cumulative	102	256	19
Annual	102	154	-237

#### Existing & Committed Renewables

##### Existing

Biomass	295	295	296	296
Wind	90	184	184	184
Geothermal	0	0	0	0
Solar	8	8	8	8
Small Hydro	100	100	100	100

##### Committed

Biomass	0	0	0	0
Includes Green Tags Wind	0	15	92	311
Geothermal	0	0	0	0
Solar	0	0	0	0
Small Hydro	0	0	0	0

<b>TOTAL</b>	493	603	680	899
<b>% of Load</b>	5%	6%	6%	8%

#### Under Consideration

Biomass	0	0	0	0
Wind	0	0	0	261
Geothermal	0	0	0	0
Solar	0	1	3	4
Small Hydro	0	0	0	0

<b>TOTAL</b>	0	1	3	265
<b>% of Load</b>	0%	0%	0%	2%

2007	2008	2009	2010	2011
170	0	0	0	0
47	47	48	48	49
31	31	31	31	31
153	153	153	153	153
2	2	2	2	2
4	4	4	4	4
1	1	1	1	1
100	100	100	100	100
509	339	340	340	341
4.5%	2.9%	2.9%	2.8%	2.8%

219	219	219	219	110
15	15	15	15	15
77	77	77	77	77
311	311	311	311	201
2.7%	2.7%	2.6%	2.6%	1.6%

5	7	8	9	11
107	107	107	107	107
153	153	153	153	153
266	267	268	270	271
2.3%	2.3%	2.3%	2.2%	2.2%

1,085	917	919	921	813
9.6%	7.9%	7.8%	7.6%	6.6%

2007	2008	2009	2010	2011	
<b>13%</b>	<b>15%</b>	<b>17%</b>	<b>19%</b>	<b>20%</b>	2%
3,050	3,112	3,173	3,234	3,295	
11,348	11,640	11,851	12,090	12,323	





ALAMEDA  
POWER & TELECOM

*A Department of the City of Alameda*

AGENDA ITEM NO: 6.C.1

MEETING DATE: 01/27/03

ADMINISTRATIVE REPORT NO. 2003-055

TO: Honorable Public Utilities Board      Submitted by: \_\_\_\_\_  
Valerie O. Fong  
Utility Services Manager

FROM: Don Rushton      Approved by: \_\_\_\_\_  
Utility Planning Supervisor      Junona A. Jonas  
General Manager

SUBJECT: Approving Renewable Portfolio Standard

Recommendation:

*By motion, it is recommended that the Public Utilities Board (Board) approve the following renewable portfolio standard for Alameda Power & Telecom (Alameda P&T): Alameda P&T intends to obtain at least 40 percent of its electrical energy from renewable resources, including large hydroelectric facilities, each year through 2020.*

Background:

State Senate Bill 1078 (SB1078) became law on January 1, 2003. The legislation modifies the California Public Utilities Code to include a specific renewable resource requirement for the investor owned utilities (IOUs) consisting of at least 20 percent of eligible renewable resources by the year 2017. "Renewable Resources" is defined as biomass, solar photovoltaic, wind, geothermal, small hydropower of 30 megawatts or less, waste tire, digester gas, landfill gas, and non-combustion municipal solid waste generation technologies. Large hydroelectric plants (30 MW or greater) are excluded, presumably, because of the negative environmental consequences that can be attributable to such facilities.

The bill also contained provisions that apply specifically to publicly-owned utilities:

- Requires the governing body to implement and enforce a renewable portfolio standard to encourage renewable resources
- Requires the publicly owned utility to report annually to the customers:
  - The amount of money spent on renewables from public goods funds
  - The resource mix used to serve customers (this is already a requirement for Alameda P&T)

## ITEM NO: 6.C.2

**Subject:** Approving Renewable Portfolio Standard  
**Date:** 01/27/03

The public power community, including the California Municipal Utilities Association and the Northern California Power Agency (NCPA), participated actively in crafting the provisions that apply to public power. They were able to retain local control and flexibility for the governing boards in establishing the portfolio standards and in determining what defines "renewable" for each publicly owned utility.

**Discussion/Analysis:**

Alameda P&T currently receives more than 80 percent of its power from renewable resources. More than 50 percent comes from the NCPA geothermal plants, which are "eligible" renewable resources as defined in the California Public Utilities Code. Approximately 25 percent of Alameda P&T's power supply comes from "large" hydroelectric facilities. Much of this hydro generation is from the NCPA Calaveras hydro plant, which would not be an eligible renewable resource for meeting the IOU's portfolio requirements.

NCPA believes that the Calaveras plant combines water usage and electric power production in an environmentally sound manner. The project was designed and constructed to maximize benefit to mankind and the environment. Minimum flows in the North Fork Stanislaus River were increased as a result of the project to protect and enhance fish and other aquatic resources. Land has been enhanced and set aside to offset any impacts to wildlife from the expanded reservoir. Hydroelectric power generation is certainly a renewable resource, and to the extent that environmental impacts are minimized and/or mitigated, Alameda P&T staff believes that this resource should be included as contributing to a renewable portfolio. Staff also believes that the 30 MW limitation on hydro adopted by the State of California is arbitrary. For these reasons, it is recommended that Alameda P&T's renewable portfolio standard be established to include large hydroelectric generation.

Projections of Alameda P&T's future power supply indicate that the contribution of renewables will decline unless new renewable resources are added to the mix. This is due in part to the expected decline in the output of the NCPA geothermal plants, and in part because of forecast load growth. It is projected that renewables will decline to about 45 percent of Alameda's power supply mix in the year 2017. If only "eligible" renewable resources are counted, the contribution is only about 24 percent. This still exceeds what some might say is a very aggressive goal established by the State for the IOUs of 20 percent renewables. During the interim years preceeding 2017, Alameda P&T's renewable portfolio will be greater than these percentages, far exceeding the statewide average. (During 2001 Alameda's actual renewable resource contribution was 88 percent, including large hydro, while the comparable number for the State is about 30 percent.)

One stated intent of the subject legislation is to "encourage renewable resources". Staff believes that Alameda P&T has already more than met this goal: it has succeeded in the development of renewable resources, supplying the great majority of its power from such resources while retaining very competitive rates. But Alameda P&T will not rest on its laurels in this regard. To

**ITEM NO: 6.C.3**

**Subject:** Approving Renewable Portfolio Standard  
**Date:** 01/27/03

help meet its future needs in an economic and environmentally responsible manner, Alameda P&T is currently pursuing the development of a solid waste gasification generation project. It is also actively pursuing other renewable resources, such as wind and solar photovoltaic.

Because Alameda P&T has greatly exceeded the performance of other utilities in the State of California with regard to the development and utilization of renewable resources, and because of the uncertainty associated with the development of new generating resources, staff recommends that the renewable portfolio standard adopted by the Board not be unduly restrictive or aggressive. Even if Alameda P&T is not successful in developing new renewable generating resources, it will meet or exceed the portfolio goal established for the IOUs. Therefore, it is recommended that the renewable portfolio goal be to provide at least 40 percent of Alameda's power supply mix from renewable resources, including large hydroelectric facilities, each year through 2020. This represents two times the standard set for the IOUs by the state.

**Budget/Financial Considerations:**

None. The cost of Alameda P&T's renewable resources is already included in the budget and in long-term projections of power costs.

DATE: JULY 8, 2003

TO: CITY MANAGER/CITY COUNCIL

FROM: PUBLIC UTILITIES GENERAL MANAGER

SUBJECT: RENEWABLE PORTFOLIO STANDARD

RECOMMENDATION:

That the City Council, by Motion, approve the City of Anaheim's Renewable Portfolio Standard (RPS), effective fiscal year 2003/04 through fiscal year 2017/18 and direct the Public Utilities General Manager, on behalf of the City, to implement the RPS.

DISCUSSION:

The Public Utilities Board (PUB) recommended approval of this item at its meeting of June 5, 2003.

Senate Bill 1078 - Renewable Portfolio Standard for Retail Electric Sellers

California State Senate Bill 1078 (SB 1078) requires retail sellers of electricity to raise the share of renewable resource generation in their power portfolios. Retail sellers of electricity include investor owned utilities (IOU) like Southern California Edison, and municipal owned utilities (MOU) such as the Anaheim Public Utilities Department (Department). Qualifying renewable generation resources for both IOU and MOU includes biomass and waste, geothermal, solar, and wind. However, MOUs also have the option to include generation from large (> 30 Megawatts) hydroelectric plants in their share of renewable resources, whereas IOUs may not.

The public policy goal of SB 1078 is to move electric retailers toward more diverse power portfolios in order to: (1) improve statewide reliability by lessening dependence on conventional fuel sources such as natural gas or coal, and (2) increase utilization of power resources that generate public health and environmental benefits.

Beginning in 2003, SB 1078 requires IOUs to increase the share of renewable energy in their power portfolios by at least one percent per year until a 20 percent share is reached. The deadline for IOUs to meet the 20 percent requirement is December 31, 2017. By contrast, an MOU has the flexibility to define and enforce its own RPS, provided that the local governing body approves it. The Department's local governing body is the Anaheim City Council.

Finally, SB 1078 requires retail sellers to distribute an annual report to their customers on: (1) expenditures of public benefit funds collected for renewable energy resource development along with a description of programs, expenditures, and expected or actual results, and (2) the resource mix used to serve its customers by fuel type, including the contribution of each type of renewable energy resource.

#### Role of Renewable Resources in Anaheim's Current Power Portfolio

Renewable resources account for approximately two percent of the Department's power portfolio. By contrast, some California utilities have power portfolios with about eight to 10 percent of renewable resources, while others have around 20 percent.

The majority of the Department's renewable resources come from hydroelectric power generated by Hoover Dam. The remainder comes from solar power systems installed at City facilities and private properties throughout Anaheim. These solar power systems generate over 380,000 kilowatt-hours of energy each year, or enough to power 63 homes.

#### Proposed RPS

With renewable resources comprising just two percent of the power portfolio, the Department proposes that the City Council approve a RPS that raises Anaheim's renewable resource share to 15 percent by December 31, 2017 and maintains that level thereafter. However, be advised that there is currently proposed legislation at both the state and federal level that, if passed, will eliminate the compliance flexibility that we currently enjoy, as well as impose higher renewable mandates and reduced compliance time. Should that occur, the Department will present a revised plan to Council.

The Department selected a 15 percent goal based on the Department's ability to absorb the higher cost of renewable resources without raising rates. Typically, renewable generation resources produce electricity that costs 1.5 to 3.0 cents per kilowatt-hour more than conventional resources like coal, natural gas, or nuclear. Therefore, due to the cost differential and the potential for higher electric rates stemming from the purchase of more renewable resources, at this time the Department does not recommend matching the 20 percent goal that the IOUs must attain, but instead strive for the gradual phase-in of a 15 percent target. New renewable purchases will be made in the amount and years that are outline in the following schedule:

<u>Year</u>	<u>FY 03/04</u>	<u>FY 05/06</u>	<u>FY11/12</u>	<u>FY15/16</u>
Renewable Purchase Amount	6MW	8MW	25MW	25MW
Renewable %	3%	5%	11%	15%

In order to pay for the renewable cost premium of 1.5 to 3.0 cents per kilowatt-hour, the Department proposes to retain 20 percent of public benefit funds or \$1.3 million annually to purchase renewable energy. The Department currently allocates approximately \$6.4 million in electric revenues per year to the public benefit fund. Therefore, the Department will pay the increased margin associated with renewable power by shifting spending priorities for public benefits funds, rather than passing on the higher cost to customers.

Reallocating the \$1.3 million will still leave the Department with sufficient funds to continue its Advantage Services energy efficiency and low-income programs for residential and business community at current levels. However, the Department will have to scale back some of its larger research and development projects.

As the share of renewable resources in the power portfolio increases, particularly after year 2010, public benefit funds will be insufficient to cover the expected cost premium between renewable and nonrenewable power resources. Consequently, the Department recommends that the RPS be reviewed every five years to reconcile renewable resource goals with financial resource availability, and identify mechanisms to absorb higher renewable resource costs if needed.

#### Initial RPS Implementation

The Department recommends purchasing wind energy from Pacific Corp Power Marketing, Inc. (PPM). PPM was chosen via a green power bidding process that involved combining Anaheim's desired green power requirements with that of a number of other Southern California municipal agencies to increase the aggregate volume of the bid, thereby lowering the price. The fixed price for this wind energy is \$53.50 per MWh over 25 years, with the right to cancel after 20 years. The initial total premium cost paid by public benefit funds will be approximately \$263,000 per year. Since the Department will be allocating approximately \$1.3 million each year for renewables, the remaining amount will be held in a reserve account, which will be used to offset future renewable purchase costs. This agreement will be presented for Council approval in a separate agenda item.

#### IMPACT ON THE BUDGET:

There is no impact on the General Fund. The Power Supply Budget in Fund 525 will cover costs for renewable resources up to the standard market price. Allocated public benefit funds, which are located in Advantage Services Fund 537, will then be used to pay the renewable resource premium over the standard market price starting in FY 2003/04. In total, the Department will allocate 20 percent of public benefit funds for renewable resources in Fund 537 for FY 2003/2004 through FY 2016/2017. This re-prioritization of current public benefit fund spending does not represent a rate increase or new fee imposed on the customer.

Respectfully submitted,

Marcie L. Edwards  
Public Utilities General Manager

## ATTACHMENT A

City of Azusa

Renewable Power Portfolio Standard (RPS)

May 21, 2003

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**Purpose:**

This standard represents Azusa's commitment to renewable resource procurement consistent with the provisions of SB 1078.

**Goal:**

Azusa will increase procurement of electricity from "eligible" renewable resources until a target portfolio level of 20% is reached by 2017, measured by the amount of energy procured in making retail sales of electricity.

**Qualifying Resources:**

Electricity produced from the following technologies constitute "eligible" resources: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, hydroelectric generation, digester gas, municipal solid waste, landfill gas, ocean wave, ocean thermal, tidal current, renewable components of system sales from other parties, or renewable distributed generation on the customer side of the meter. Facilities can be located anywhere in the interconnected transmission system located in the west, and with preferences to resource locations within California.

**Timing of Long-Term Resource Additions:**

Renewable resources will be procured to the extent they fulfill unmet needs identified in Azusa's long-term resource plan and supplement short-term resource needs. Azusa will not terminate, abrogate, or otherwise end any existing long-term contract in order to meet the renewable target portion of its energy portfolio.

**Price Benchmarking:**

The appropriate reasonable prices to be paid for renewable resources will be established by the Azusa's Utility Board and should to the maximum extent feasible consistent with the price benchmarks set by the CPUC for the State's investor owned utilities and shall include the cost of associated transmission to deliver the energy to Azusa's service territory.

**Limit on Subsidies:**

Azusa may utilize the funds generated by the "public benefits charge" (PBC) that Azusa adds as a surcharge to retail bills pursuant to the provisions of AB 1890 to subsidize the above-market costs of renewable energy. To the extent such funds are not insufficient, Azusa may defer the renewable resources procurement up to three years as described below until such funds are sufficient for this purpose.

**Flexible Compliance:**

Azusa is authorized to purchase the “environmental attributes” or “green tickets” from a renewable resource, without purchasing the associated energy, to comply with this RPS. Also, “catching-up” for procurement shortfalls and “banking” excess procurements for credit in the future over as many as three years will be allowed. However, procurement preference should be given to physical renewable resources in the first instance.

**System Rate Impact:**

The addition of renewable energy resources shall not increase system wide rates by more than a level by the Utility Board, currently set at 5% of the retail rates.

## **CITY OF BIGGS – POLICIES AND PROCEDURES MANUAL**

### **RENEWABLE PORTFOLIO STANDARD – BIGGS ELECTRIC UTILITY**

#### **I. Purpose:**

To establish a Renewable Portfolio Standard (RPS) in compliance with the requirements of Senate Bill 1078 (SB 1078) for the City of Biggs.

#### **II. Background**

SB1078 was signed into law on September 12, 2002 and became effective January 1, 2003. It amended the California Public Utilities Code to include a specific renewable resource requirement for investor owned utilities (IOUs). The legislation also includes provisions that apply to publicly owned utilities. These provisions include:

1. The requirement that the governing body implement and enforce a Renewable Portfolio Standard to encourage renewable resources.
2. The requirement that publicly owned utilities report annually to their customers the following:
  - A. The amount of money spent on renewables from public benefit funds;
  - B. The resource mix used to serve the customers (Biggs Municipal Utilities already publishes a quarterly notice).
3. Each municipal utility governing board must define the terms of its RPS. The terms would include:
  - A. What qualifies as a renewable resource (i.e. whether or not to count large hydroelectric projects (in excess of 30MW);
  - B. The percentage of the total energy resources that are to be renewable;
  - C. The time frame in which to meet the “goal” of the defined standard.

#### **III. Discussion**

1. The City of Biggs’s Electric Utility currently has a number of resources that would meet the CPUC definition of “Renewable” for IOU purposes. The utility’s participation in the NCPA geothermal plants is an eligible renewable resource. Due to the city’s ownership percentage in the two Northern California Power Agency (NCPA) geothermal plants, approximately 10% of our required power is derived from renewable sources.
2. Although excluded for the purposes of the IOU’s requirements under SB1078, the city’s share in “large” hydroelectric projects is a valuable and critical component of the energy needs of the community. A major portion of the electricity requirements of the City of Biggs’s customers is delivered under a long-term contract with the Department of Energy’s

## **CITY OF BIGGS – POLICIES AND PROCEDURES MANUAL**

Western Area Power Administration (WAPA). Much of this power is generated at Shasta, Folsom and New Melones Dams. None of these dams meet the CPUC's eligibility requirements for IOU's. However, due to the nature of the management of these facilities by the Federal Government for power, reclamation and environmental concerns, staff believes that a separation of large and small hydroelectric projects at a 30 MW level is arbitrary and ignores the unique nature of the resources provided by WAPA and the Department of Interior's Bureau of Reclamation.

3. AB 1078 encourages the use of "eligible" renewable resources when developing additional resources for our community's needs. Although the "load" of our community will generally increase due to growth and expansion, the city has planned for this growth well before the introduction of SB1078 and secured resources in excess of our current demand that should sustain any reasonable growth for the next 5 to 7 years.

### **IV. POLICY:**

The Renewable Portfolio Standard (RPS) of the City of Biggs will be as follows:

1. Qualifying RPS resources are defined as non-fossil fueled electric generating resources, including the following:
  - A. Geothermal
  - B. Hydroelectric
  - C. Solar
  - D. Wind
  - E. Biomass and waste
  - F. Fuel cell
2. RPS Target:
  - A. Biggs Municipal Utilities' (BMU) resource mix will have a minimum of 20% of renewables.
  - B. At such time that projected resources do not exceed projected demand, BMU will strive to include qualifying resources to meet projected demand.
  - C. Any purchase or construction of qualifying resources will be accomplished primarily with accumulated public benefit funds. Due to the expected magnitude of incremental resource requirements it is highly unlikely that BMU can secure qualifying resources at reasonable rates (i.e. 100 kw of demand is a very small unit of delivery). There is a potential within NCPA that BMU will be able to obtain a percentage ownership in a qualifying facility but probably not at the time that the projected resources are required.
3. Strategies for meeting RPS objectives:

## **CITY OF BIGGS – POLICIES AND PROCEDURES MANUAL**

- A. Encourage solar and geothermal demonstration projects utilizing public benefit funds. Demonstration and production solar and geothermal projects installed at a small percentage of new homes should provide sufficient RPS qualifying resources.
- B. Public benefit funds, when available, will be used to implement the demonstration projects and may be used to supplement the production projects.

### **4. Reporting RPS performance**

- A. BMU will continue to report to its customers the annual power content label.
- B. BMU will report the amount of public benefit funds expended for the development of qualifying RPS resources in conjunction with the annual power content label reporting.

**STATUTORY REFERENCE:** California Public Utilities Code Sections 387, 390.1, 399.25 and 399.11 tense.

**APPROVED BY CITY COUNCIL (DATE): May 19, 2003**

**ATTEST:** \_\_\_\_\_  
Deanna Carbajal, Deputy City Clerk

**City of Burbank**

**Water & Power**

**Renewable Portfolio Standard**

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- Purpose:** This standard represents Burbank's commitment to renewable resource procurement consistent with the provisions of SB 1078.
- Goal:** BWP will increase procurement of electricity from eligible renewable resources until a target portfolio level of 20% is reached by 2017, measured by the amount of energy required in making retail sales of electricity.
- Qualifying Resources:**  
Electricity produced from the following technologies constitute "eligible" resources: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, low impact hydroelectric generation, digester gas, municipal solid waste, landfill gas, ocean wave, ocean thermal, tidal current, renewable components of sales from other parties (green tickets), or renewable distributed generation on the customer side of the meter. Facilities can be located anywhere in the interconnected transmission system located in the interconnected WECC electrical grid.
- Timing of Long-Term Resource Additions:**  
Renewable resources will be procured to the extent they fulfill unmet needs identified in BWP's long-term resource procurement plan. BWP will not uneconomically terminate, abrogate, or otherwise end any existing long-term contract in order to meet the renewable target portion of its energy portfolio.
- Price Benchmarking:**  
In considering the appropriate reasonable prices to be paid for renewable resources, Burbank will consider but not be limited to the price benchmarks set by the CPUC for the State's investor owned utilities and shall include the costs associated with transmission.
- Limit on Subsidies:**  
The procurement obligation is contingent upon BWP having sufficient funds available to make "supplemental energy payments" to subsidize the above-market costs of renewable energy. Any subsidy will come from public benefit expenditures that BWP is required to make pursuant to the provisions of AB 1890. Renewable energy subsidies from Public Benefits Funds will not come at the expense of conservation programs. The availability of sufficient Public Benefits Funds will be a de facto limit on the annual renewable purchase obligation and compliance with this Standard will be deemed achieved where noncompliance is caused by the unavailability of PBC expenditures in an amount not to exceed 17% annually.
- Rate Impact:**  
The addition of renewable energy resources should not materially increase system wide rates.

*This RPS policy was adopted by the Burbank City Council on November 25, 2003.*



# City of Gridley

## Gridley Municipal Utilities' Electric Renewable Portfolio Standard

### PURPOSE:

To state City policy regarding 2002 SB1078 – Renewable Portfolio Standard (RPS).

### BACKGROUND:

State Senate Bill 1078 (SB1078) was signed into law on September 12, 2002 and was effective January 1, 2003. The legislation modifies the California Public Utilities Code to include a specific renewable resource requirement for investor owned utilities (IOUs). The legislation also includes provisions that apply to publicly owned utilities. These provisions would include:

- Requirement that the governing body implement and enforce a renewable portfolio standard to encourage renewable resources
- Requirement that publicly owned utilities report annually to their customers the following
  - The amount of money spent on renewables from public benefit funds
  - The resource mix used to serve the customers (Gridley Municipal Utilities already publishes a quarterly notice)
- Each municipal utility governing board must define the terms of its RPS. The terms would include:
  - What qualifies as a renewable resource (i.e. whether or not to count large hydroelectric projects (in excess of 30MW))
  - The percentage of the total energy resources that are to be renewable
  - The time frame in which to meet the “goal” of the defined standard

### Discussion points:

1. The City of Gridley's Electric Utility currently has a number of resources that would meet the CPUC definition of “Renewable” for IOU purposes. The utility's participation in the NCPA geothermal plants is an eligible renewable resource. Of the approximate 32,000 MWH of electricity delivered to the City of Gridley annually, approximately 3,200 MWH are from the City's ownership percentage in the two NCPA geothermal plants; or approximately 10% of our required power.
2. Although excluded for the purposes of the IOU's requirements under SB1078, the City's share in “large” hydroelectric projects is a valuable and critical component of the energy needs of the community. Of the approximately 32,000 MWH of electricity delivered to the City of Gridley annually, fully 28,618 MWH or 89% of the electricity needs of the City of Gridley's customers is

delivered under a long term contract with the Department of Energy's Western Area Power Administration (WAPA). Much of this power is generated at Shasta, Folsom and New Melones Dams. None of these dams meet the CPUC's eligibility requirements for IOU's. However, due to the nature of the management of these facilities by the Federal Government for power, reclamation and environmental concerns, staff believes that a separation of large and small hydroelectric projects at a 30 MW level is arbitrary and ignores the unique nature of the resources provided by WAPA and the Department of Interior's Bureau of Reclamation.

3. Although excluded from consideration, the City of Gridley's contract with WAPA includes a capacity factor of 9.4MW. At no time during the existing contract has the City's peak load exceeded this "maximum" capacity under our contract. In other words, the City has a built in growth potential through the end of the current contract (which ends on December 31, 2004) without any obligation to identify specific new resources to serve additional growth. Our average months (fall, winter and spring) currently have a maximum capacity rate of about 4MW to 4.5MW. Summer months have recently had a maximum capacity rate of 9.0MW. Any growth until December 31, 2004 will be contractually available to the City from resources provided by WAPA.
4. Also for consideration, the City recognized during 2001 that resources currently available from WAPA would be substantially reduced beginning January 1, 2005. Because of this, prior to the passage of SB1078, the City secured a long-term supply of power that will sustain any growth projections for several years. The contract for this long-term power expires in 2012.
5. The legislation encourages the use of "eligible" renewable resources when developing additional resources for our community's needs. Although the "load" of our community will generally increase due to growth and expansion, the City has planned for this growth well before the introduction of SB1078 and secured resources in excess of our current demand that should sustain any reasonable growth for the next 5 to 7 years.

### **POLICY:**

The renewable portfolio standard of the City of Gridley will be as follows:

- **Qualifying RPS resources are defined as non-fossil fueled electric generating resources, including all hydroelectric resources:**
  - Geothermal
  - Hydroelectric
  - Solar
  - Wind
  - Biomass and waste
  - Fuel cell

- **RPS Target:**

- Gridley Municipal Utilities' (GMU) resource mix will have a minimum of 20% of renewables
- At such time that projected resources do not exceed projected demand, GMU will strive to include qualifying resources to meet projected demand.
- Any purchase or construction of qualifying resources will be accomplished primarily with accumulated public benefit funds. Due to the expected magnitude of incremental resource requirements it is highly unlikely that GMU can secure qualifying resources at reasonable rates (i.e. 100 kw of demand is a very small unit of delivery). There is a potential within NCPA that GMU will be able to obtain a percentage ownership in a qualifying facility but probably not at the time that the projected resources are required.

- **Strategies for meeting RPS objectives:**

- GMU is in the process of implementing solar and geothermal demonstration projects utilizing public benefit funds. Housing stock is expected to increase 25% in the next 10 years. Demonstration and production solar and geothermal projects installed at a small percentage of the expected 450 new homes will provide ample RPS qualifying resources.
- Public benefit funds, when available, will be used to implement the demonstration projects and may be used to supplement the production projects.

- **Reporting RPS performance**

- GMU will continue to report to its customers the annual power content label.
- GMU will report the amount of public benefit funds expended for the development of qualifying RPS resources in conjunction with the annual power content label reporting

**CITY OF COLTON**  
**AGENDA REPORT**  
**FOR CITY COUNCIL MEETING OF OCTOBER 07, 2003**

<b>TO:</b>	<b>HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL</b>
<b>FROM:</b>	<b>Thomas K. Clarke, Electric Utility Director</b> <i>go. for TKE</i>
<b>SUBJECT:</b>	<b>Renewable Portfolio Standards Policy</b>
<b>DATE:</b>	<b>September 29, 2003</b>

**BACKGROUND**

The City of Colton must formally adopt a Renewable Portfolio Standard (RPS) Policy to comply with Senate Bill 1078. Signed by the Governor on September 12, 2002, it became law on January 1, 2003. SB 1078 provides specific guidelines to Investor Owned Utilities (IOU) in developing and implementing a Renewable Portfolio Standard, and orders municipal electric utilities to devise local standards in light of the legislation's public policy goals.

After establishing a current baseline, IOUs are generally required to procure additional renewable resources at 1% per year until the resource mix reaches 20% renewable by December 31, 2017. The IOU requirement to purchase renewable energy is limited to what can be procured at market rates plus available public benefit funds. Currently, the available public benefit funds represent only a small portion of the total IOU public benefit charge funds collected each year. The remaining public benefit funds are to be spent on low-income, demand-side management, research, development, and demonstration programs, as well as improvements to existing renewable energy infrastructure. Municipals are required to adopt and enforce an RPS standard that makes sense for their territory and their customers; they are also required to report annually to their customers the results achieved by those expenditures and programs. The mandate for municipal electric utilities from SB 1078 is as follows:

Public Utilities Code (PUC) Section 387:

- (a) *Each governing body of a local publicly owned electric utility, as defined in Section 9604, shall be responsible for implementing and enforcing a renewables portfolio standard that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.*
- (b) *Each local publicly owned electric utility shall report, on an annual basis, to its customers, the following:*
  - (1) *Expenditures of public goods funds [Public Benefit Funds] collected pursuant to Section 385 for renewable energy resource development. Reports shall contain description of programs, expenditures, and expected or actual results.*
  - (2) *The resource mix used to serve its customers by fuel type. Reports shall contain the contribution of each type of renewable energy resource with separate categories for those fuels considered eligible renewable energy resources as defined by Section 399.12.*

**DISCUSSION/ ANALYSIS**

Currently, the City's renewable energy resources equal approximately 5% of the total resource mix. These renewable energy sources include hydroelectric, landfill gas, and solar. The Electric Utility recently procured 1 MW of wind generated power, and a feasibility study for hydro turbine generation at the RIX facility is underway. The RPS proposes a target portfolio level of 15% by December 31, 2017, measured by the amount of energy procured in making retail sales of electricity. Electricity produced from the following technologies constitute eligible resources: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, hydroelectric generation, digester

gas, municipal solid waste, landfill gas, ocean wave, ocean thermal, tidal current, renewable components of system sales from other parties, or renewable distributed generation on the customer side of the meter. Large hydroelectric generation facilities greater than 30 MW cannot be included as an eligible renewable resource for IOUs; however, SB 1078 leaves it to each municipal electric utility to define renewable resources on its own terms. Therefore, the proposed RPS does in fact include the City's share of Hoover Dam, a large hydropower facility.

Renewable resources will be procured to the extent they fulfill unmet needs identified in the Electric Utility's long-term resource procurement plan and the Electric Utility will not terminate, abrogate, or otherwise end any existing long-term contract in order to meet the renewable target portion of its energy portfolio. Facilities can be located anywhere in the interconnected transmission system located in the west.

The appropriate reasonable prices to be paid for renewable resources will be consistent with the price benchmarks set by the CPUC for the IOUs and shall include the cost of associated transmission to deliver the energy to the City's service territory.

The RPS also authorizes the Electric Utility to purchase environmental attributes or "green tickets" from a renewable resource without purchasing the associated energy to comply with provisions of SB 1078. There are also provisions to catch-up for procurement shortfalls and bank excess procurements for credit in the future over as many as three years.

This policy will be reviewed and revised as necessary. As always, the goal of the Electric Utility is to continue to provide reliable service at the lowest cost possible while supporting the State's commitment to green power.

**FINANCIAL IMPACT**

Renewable energy is usually more expensive than conventional resources. Therefore, the renewable energy procurement obligation is contingent upon the Electric Utility having sufficient funds available to subsidize the above-market costs of the renewable energy sources. The City of Colton Electric Utility Department receives approximately \$900,000 per year in public benefit funds and is committed to spending up to 50% of these funds as an above-market subsidy. In addition, the RPS includes a provision that limits the impact to system-wide rates to not more than 2%.

**ENVIRONMENTAL IMPACT**

None.




**CONFLICT OF INTEREST** – Gift Disclosure Requirements

Not applicable at this time.

**RECOMMENDATION**

Staff recommends that City Council approve and adopt the attached resolution outlining the Renewable Portfolio Standard for the City.

Prepared by: Jeannette Olko, Assistant Electric Utility Director

<b>REVIEW TEAM ONLY</b>	
City Attorney: <u></u>	Finance Director: <u></u>
City Manager: <u></u>	OTHER: _____

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**RESOLUTION NO. R-102-03**

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COLTON, CALIFORNIA  
ADOPTING THE CITY'S RENEWABLE PORTFOLIO STANDARD**

WHEREAS: The State of California requires the City to establish a Renewable Energy Portfolio Policy; and

WHEREAS: The City Council wishes to encourage the use of Renewable Energy sources;

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF COLTON DOES HEREBY RESOLVE AS FOLLOWS:**

**SECTION 1.** This standard represents the City of Colton Electric Utility's commitment to renewable resource procurement consistent with the provisions of SB 1078.

**SECTION 2.** The City of Colton Electric Utility will increase procurement of electricity from eligible renewable resources until a target portfolio level of 15% is reached by December 31, 2017, measured by the amount of energy procured in making retail sales of electricity.

**SECTION 3.** Electricity produced from the following technologies constitute eligible resources: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, hydroelectric generation, digester gas, municipal solid waste, landfill gas, ocean wave, ocean thermal, tidal current, renewable components of system sales from other parties, or renewable distributed generation on the customer side of the meter. Facilities can be located anywhere in the interconnected transmission system located in the west.

**SECTION 4.** Renewable resources will be procured to the extent they fulfill unmet needs identified in Colton Electric Utility's long-term resource procurement plan and Colton Electric Utility will not terminate, abrogate, or otherwise end any existing long-term contract in order to meet the renewable target portion of its energy portfolio.

**SECTION 5.** The appropriate reasonable prices to be paid for renewable resources will be consistent with the price benchmarks set by the CPUC for the IOUs and shall include the cost of associated transmission to deliver the energy to Colton Electric Utility's service territory.

**SECTION 6.** The renewable energy procurement obligation is contingent upon Colton Electric Utility having sufficient funds available to make supplemental energy payments to subsidize the above-market costs of renewable energy. The subsidy will come from up to 50% of the funds generated by the public benefits charge that Colton Electric

1 Utility adds as a surcharge to retail bills pursuant to the provisions of AB 1890.  
2 The availability of sufficient public benefits charge funds is a de factor limiter on the  
3 annual renewable purchase obligation and compliance with this standard is deemed  
4 achieved where noncompliance is caused by the unavailability of public benefit funds.

5 **SECTION 7.** Colton Electric Utility is authorized to purchase the  
6 environmental attributes or green tickets from a renewable resource, without  
7 purchasing the associated energy, to comply with this RPS. Also, catching-up for  
8 procurement shortfalls and banking excess procurements for credit in the future over  
9 as many as three years will be allowed.

10 **SECTION 8.** The addition of renewable energy resources shall not increase  
11 system wide rates by more than 2%.

12 **PASSED, APPROVED AND ADOPTED** this 7<sup>th</sup> day of October, 2003.

13 \_\_\_\_\_  
14 DEIRDRE H. BENNETT  
15 Mayor

16 ATTEST:

17 \_\_\_\_\_  
18 CAROLINA BARRERA  
19 City Clerk  
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FORM CM-36

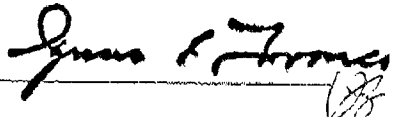
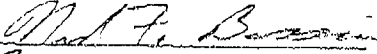
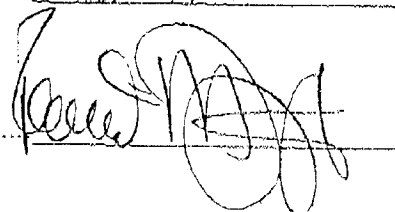

**CITY OF GLENDALE CALIFORNIA  
REPORT TO CITY COUNCIL**

December 16, 2003

**AGENDA ITEM**Request For Approval of Glendale *Water & Power* Renewables Portfolio Standard(1) Motion to approve Glendale *Water & Power* Renewables Portfolio Standard**COUNCIL ACTION**

Public Hearing [ ] Ordinance [ ] Consent Calendar [ ] Action Item [ X ] Report Only [ ]  
Approved for December 16, 2003 calendar

**ADMINISTRATIVE ACTION**

		Signature
Submitted	Ignacio R. Troncoso, Director of Public Service	
Prepared	Ned F. Bassin, Power Management Administrator	
Approved	James E. Starbird, City Manager	
Reviewed	Scott H. Howard, City Attorney	

**RECOMMENDATION**It is requested that Council approve the Glendale *Water & Power* Renewables Portfolio Standard.

## SUMMARY

The City of Glendale must formally adopt a Renewables Portfolio Standard (RPS) Policy to comply with Senate Bill 1078 (SB1078). Signed by the Governor on September 12, 2002, it became law on January 1, 2003. It requires local municipal electric utilities to develop and enforce an RPS within their jurisdiction, and annually report to customers the energy resource mix and usage of public benefit (PBC) funds for renewable resource development. SB1078 requires that each local RPS recognize the intent of the Legislature to encourage renewable resources, but allows that local municipal utilities to consider the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement in developing and adopting a local RPS. Glendale *Water & Power* (GWP) proposes an RPS goal of 20% renewable energy by 2017. GWP will report its progress in meeting the 20% goal to its customers on an annual basis. A copy of GWP's RPS is included as Exhibit (1).

## FISCAL IMPACT

There is no impact on the General Fund. GWP operating revenues will cover costs for renewable resources. Up to 20% of PBC funds collected during the period FY 2003-2003 through FY 2016-2017 may be used for RPS, subject to separate approval during the PBC budgeting process.

## BACKGROUND

SB1078 establishes an RPS for California retail sellers of electricity. Signed by the Governor on September 12, 2002, it became law on January 1, 2003. SB1078 requires that each investor owned utility (IOU) procure additional renewable resources at 1% per year until the resource mix reaches 20% renewables. The IOU deadline for meeting the 20% requirement is December 31, 2017. Recognizing the potential adverse impacts on rates, SB1078 allows IOUs limited use of PBC funds, up to 17% annually, to support RPS goals. SB1078 excludes large hydropower from the IOU definition of eligible renewable resources, and further mandates that IOUs purchase their renewable energy from in-state resources.

Recognizing large differences among municipal utility service territories, SB1078 anticipated that compliance might require different responses from local municipal utilities in supporting the public policy goals of SB1078. Therefore, SB1078 affords municipal utilities a great deal of discretion for determining how to devise and implement an RPS that meets the unique needs of local service territories. Specifically, the SB1078 mandate for municipal electric utilities is limited to the following:

Public Utilities Code (PUC) Section 387:

- (a) *Each governing body of a local publicly owned electric utility, as defined in Section 9604, shall be responsible for implementing and enforcing a renewables portfolio standard that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.*
- (b) *Each local publicly owned electric utility shall report, on an annual basis, to its customers, the following:*
  - (1) *Expenditures of public goods funds collected pursuant to Section 385 for renewable energy resource development. Reports shall contain a description of programs, expenditures, and expected or actual results.*
  - (2) *The resource mix used to serve its customers by fuel type. Reports shall contain the contribution of each type of renewable energy resource with separate categories for those fuels considered eligible renewable energy resources as defined by Section 399.12.*

As such, municipal electric utilities are not required to adopt any particular percentage goal for renewables, nor are they required to favor any particular technologies. Rather, municipal utilities are required to adopt an RPS that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, financial resources, and the goal of environmental improvement. In other words, SB1078 simply requires each municipal electric utility to adopt an RPS that makes sense for their service territory and customers, and annually report programs and expenditures undertaken in support of the RPS goals. Finally, though large hydropower is excluded from the definition of eligible renewable resources for the IOUs, and all IOU resources must be purchased within California, these restrictions do not apply to municipal utilities. Rather, each municipal electric utility is left to define "eligible renewable resources" on its own terms, including where such resources will be located. GWP has elected to include Hoover Dam, a large hydroelectric power project, as an eligible renewable resource, and to procure resources from within the Western United States.

In FY 2002-2003, GWP retail electric sales reached 1061 GWh. Approximately 14.6% of those sales came from renewable resources. This is higher than many other Southern California municipal utilities, and in line with California's best performers with renewable resources accounting for 10 to 20% of retail sales. Hydropower from Hoover Dam accounted for 7.4% or 78 GWh, and the Scholl Canyon Landfill Gas accounted for 7.3% or 77 GWh each. GWP recently entered into a long-term contract with PacifiCorp Wind Power. This agreement provides 26.3 GWh annually for 25 years at \$53.50/MWh, with no escalation. The addition of these resources is expected to raise GWP's renewable resources, as a percent of sales, to 16.8% this year. GWP is also considering an investment in the Ameresco Chaquita Canyon Landfill Gas Project. If recommended and approved, this project would add another 27.9 GWh of renewable energy each year, at a levelized cost of \$54.00/MWh for 20-years starting in FY 2005-2006. The addition of this project could raise GWP's renewable resource portfolio to 18.9% of retail sales. These investments show that GWP is committed to renewable energy development.

GWP proposes adopting an RPS goal of 20% renewable energy by 2017. Other Southern California municipal utilities such as Colton and Anaheim have set the RPS goal at 15.0% by 2017. Burbank and Pasadena have set a goal of 20% by 2017. Riverside seeks to reach 20% by 2015. To the extent that GWP is successful in obtaining renewable resources at reasonable cost, GWP plans to increase its RPS goal to 23%.

Table 1 below summarizes GWP's projected sales and renewable energy resource needs through 2017 assuming an escalation in electricity demand of 1.5% a year. As Table 1 shows, an escalation rate of 1.5% projects that GWP retail sales will grow from 1061 GWh in FY 2002-2003 to 1307 GWh by FY 2016-2017. Based on current renewable resources, GWP will need to increase resources by an average 6.1 GWh a year each year to reach 20% by 2017.

TABLE 1

20% RENEWABLE PORTFOLIO STANDARD (RPS) WITH LARGE HYDRO														
Fiscal Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Total Retail Sales (GWh)	1076.9	1093.1	1109.5	1126.1	1143.0	1160.1	1177.5	1195.2	1213.1	1231.3	1249.8	1268.8	1287.6	1306.9
Current Renewable Sales (GWh)	177.0	181.8	181.8	181.8	181.8	181.9	181.9	181.9	182.0	182.0	182.0	182.1	182.1	182.1
Hydroelectric	Hoover Dam	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Landfill Gas	Schoff Canyon	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0
Wind	PacifiCorp	21.9	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
Photovoltaic	Res. PV Buydown	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.5
	Beeline Facility	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	New York Sub	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
% Renewables	16.4%	16.6%	16.4%	16.1%	15.9%	15.7%	15.4%	15.2%	15.0%	14.8%	14.8%	14.4%	14.1%	13.8%

To mitigate any potential rate impacts, GWP will continue to seek lower cost investments such as PacifiCorp and Ameresco projects, and actively investigate such opportunities. For example, the potential exists for an expansion of the pending Ameresco project under review. Such an expansion could provide GWP with access to an additional 17.5 GWh per year or more. Table 2 below summarizes GWP's projected sales and renewable energy resource needs assuming both Ameresco projects are added to GWP's renewables portfolio. As Table 2 shows, the addition of both Ameresco projects would lower GWP's annual new renewables requirement from an average 6.1 to 2.6 GWh per year to reach 20% by 2017.

TABLE 2

20% RENEWABLE PORTFOLIO STANDARD (RPS) WITH LARGE HYDRO				
Fiscal Year	2003-04	2005-06	2007-08	2016-17
Total Sales (GWh)	1076.9	1109.5	1143.0	1306.9
Renewable Sales With Ameresco (GWh)	177.0	209.7	227.2	227.5
Hydroelectric	Hoover Dam	78.0	78.0	78.0
Landfill Gas	Schoff Canyon	77.0	77.0	77.0
	Ameresco I	0.0	27.9	27.9
	Ameresco II	0.0	0.0	17.5
Wind	PacifiCorp	21.9	26.3	26.3
Photovoltaic	Res. PV Buydown	0.1	0.1	0.5
	Beeline Facility	0.0	0.2	0.2
	New York Sub	0.0	0.2	0.2
% Renewables With Ameresco	16.4%	18.9%	19.9%	17.4%
Additional Renewables Needs (GWh)	0.0	5.2	10.4	33.8
Projected % Renewables Assuming Additional Needs Added	16.4%	19.4%	20.8%	20.0%

To the extent that such investments are above the market or not available, GWP may seek to utilize PBC funds to offset RPS costs. GWP's use of PBC funds for RPS purposes would be included in the PBC budget and subject to separate approval through the PBC budgeting process.

## EXHIBITS

- (1) Glendale Water & Power's Renewables Portfolio Standard.
- (2) Motion to Approve Glendale Water & Power's Renewables Portfolio Standard.

**EXHIBIT 1****Glendale Water & Power  
Renewables Portfolio Standard**

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***Background***

State Senate Bill 1078 (SB1078) was signed into law on September 12, 2002 and became effective on January 1, 2003. The legislation modifies the California Public Utilities Code Section 387 to include a specific renewable resource requirement for investor owned utilities (IOUs) and also includes provisions that apply to publicly owned utilities such as Glendale Water & Power (GWP). Specifically, the provisions applicable to GWP read as follows:

- Each governing body of a local publicly owned electric utility, as defined in Section 9604, shall be responsible for implementing and enforcing a renewables portfolio standard that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.
- Each local publicly owned electric utility shall report, on an annual basis, to its customers, the following:
  - Expenditures of public goods funds collected pursuant to Section 385 for renewable energy resource development. Reports shall contain a description of programs, expenditures, and expected or actual results.
  - The resource mix used to serve its customers by fuel type. Reports shall contain the contribution of each type of renewable energy resource with separate categories for those fuels considered eligible renewable energy resources as defined by Section 399.12.

The City of Glendale supports a broad range of low-income, energy conservation, renewable energy, and research, development, and demonstration programs through GWP's extensive public benefit program (PBC) portfolio. Funded through a separate state-mandated charge on GWP revenues, these programs offer substantial benefits to our low-income customers, while encouraging the wise use of GWP energy resources. GWP intends to continue to provide these programs for our customers.

***Objectives***

Broadly, GWP's objective is to reliably meet Glendale's electric energy needs at stable and reasonable rates in an environmentally sensitive manner. This objective is effectuated through an integrated resource plan that incorporates thermal resources, short-term purchases, and demand-side management programs in addition to renewable resources.

Specific objectives include:

- Meet the State mandate to encourage renewable resources
- Obtain a diverse portfolio of cost-effective renewable resources

- Develop local renewable resources
- Minimize adverse impact of acquiring new renewable energy resources on customer electric rates

### ***Qualified Renewable Resources***

- Renewable resources are defined as non-fossil fuel electric generating resources including: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, hydroelectric generation, digester gas, municipal solid waste, landfill gas, ocean wave, ocean thermal, tidal current, renewable components of system sales from other parties, or renewable distributed generation on the customer side of the meter.
- Renewable components of system sales obtained from other parties for resale shall qualify to the extent they can be verified.
- GWP's existing Hoover hydroelectric entitlements shall qualify.
- New hydroelectric projects must be less than 30 MW to qualify.
- Renewable resources may be located within the Western Electricity Coordinating Council region.

### ***RPS Target***

- Resources used to meet GWP's retail electric energy sales will include 20% eligible renewable resources by year 2017.
- To the extent that GWP is successful in obtaining renewable resources at reasonable cost, GWP will increase its goal to 23 percent.

### ***Strategies for Meeting GWP's RPS Objectives***

- Procure new renewable resources through a combination of cost-effective long-term contracts, short-term purchases, and development of local solar photovoltaic generation capabilities.
- Seek resources that are cost-effective, with minimal impact on customer energy costs.
- Use of PBC funds for RPS purposes will be determined by City Council and included in the PBC budget subject to separate approval through the PBC budgeting process.
- Renewable resources will be procured to the extent they fulfill unmet needs identified in GWP's integrated resource plan and supplemental short-term resource needs
- GWP will not terminate, abrogate, or otherwise end any existing long-term contract to meet the renewable target portion of its energy portfolio.
- The GWP Commission and City Council shall consider rate impacts, including the cost of associated transmission to deliver the energy to GWP's service territory, when approving contracts for additional renewable resources.

### ***Reporting RPS Performance***

Beginning with energy sold in Glendale for the period July 1, 2003 to June 30, 2004, GWP will report the following information to its customers annually:

- GWP's resource mix used for retail electric sales, by fuel type, including each type of renewable resource used
- GWP's expenditure of PBC funds used for renewable energy and renewable resource development

**MOTION**Moved by Council Member Weaverseconded by Council Member Manoukian

that the City Council hereby adopts the Glendale Water & Power Renewables Portfolio Standard as described in, and attached as Exhibit 1 to, the December 16, 2003 Agenda Item entitled "Request for Approval of Glendale Water & Power Renewables Portfolio Standard,," submitted by Ignacio R. Troncoso, Director of Public Service, and authorizes the Director of Public Service to implement said standard. Staff is directed to review the standard annually to determine whether revisions to the standard are warranted.

## Vote as follows:

Ayes: Gomez, Manoukian, Weaver, Yousefian, Quintero

Noes: None

Absent: None

Abstain: None

MOTION ADOPTED BY THE GLENDALE CITY COUNCIL AT ITS  
REGULAR MEETING HELD ON Tuesday, December 16, 2003.

APPROVED AS TO FORM


Steven H. Lim  
SENIOR ASSISTANT CITY ATTORNEYDATE 12/2/03

**REPORT OF THE  
CHIEF LEGISLATIVE ANALYST**

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Date: December 10, 2003

To: Honorable Members of the Commerce, Energy and Natural Resources  
Committee

From: Ronald F. Deaton,   
Chief Legislative Analyst

Subject: **REPORT ON THE DEPARTMENT OF WATER AND POWER'S RPS  
PROGRAMS**

**PREVIOUS COMMITTEE ACTION:**

The Committee heard testimony from representatives of the Department of Water and Power (DWP) and members of the public including environmental advocacy groups, renewable energy suppliers and consultants on the subject of the RPS programs. As part of the testimony provided on the subject of renewable energy, DWP shared with the Committee its plans for responding to the City Controller's initial audit findings as well as to recent legislation known as the Renewables Portfolio Standard (RPS). At the conclusion of these hearings, your Committee directed the CLA to report back with an analysis of DWP's renewable investment efforts.

**SUMMARY**

For more than a decade DWP has dedicated billions of dollars in support of a capital investment program designed to improve efficiency and performance while reducing emissions from its power generation activities. California's RPS legislation mandates investor owned utilities (IOU) to increase their total annual retail power sales from eligible renewable resources by at least 1% per year with a goal of attaining 20% aggregate annual retail sales by 2017. The legislation's goal is to encourage renewable resources while allowing for rate relief for IOU's which are only required to fund the RPS provided there are funds available for electricity procurement and administrative cost recovery. Municipal utilities are currently exempt from the specific provisions set forth in the RPS. However, SB1078 requires municipal utilities to develop renewables programs in keeping with the legislation and mandates certain annual disclosures to customers relative to public goods expenditures and energy resource investments. The City Council adopted a renewable power policy in fiscal 2000 whereby DWP would

meet 50% of its annual load growth through a combination of demand side management, distributed generation investments and renewable resources programs. At present, about 12 percent of California IOU's electricity sold is being produced from RPS eligible resources which include solar, wind, geothermal, biomass, and small (less than 30MW) hydroelectric energy. For the period ending December 31, 2002, about 8% of DWP's electricity was derived from renewable energy resources including all hydroelectric power. This figure does not include hydroelectric power produced at Castaic because of the complications in properly characterizing the hydroelectric power produced at the plant. Water used to produce the power frequently must be pumped up from below the plant, so such power would not be assumed to be produced from renewable sources. On the other hand, depending on rainfall and water availability above the plant, pumping may not be necessary. If Castaic were included as a renewable, roughly 13% of the DWP's portfolio comes from renewable sources.

Any new renewables policy needs to justify all power related capital investments regardless of fuel source or generation type with criteria that measures investments based on reliability, performance, ratepayer cost/benefits as well as the relative air quality attributes. The focus of any renewable policy must also provide for the continuance of low income program support and to encourage projects like the in-basin and castaic pumped station repowerings. Finally, DWP should ensure that existing renewable power plant installations are meeting expectations from a cost and performance standpoint to determine whether current and planned funding commitments should be modified.

## CONCLUSIONS

1. DWP already owns sufficient generation facilities to support 117% to 123% of its "native customer load" requirements for the next several years, but based on DWP's Integrated Resource Plan which assumes 1.4% load growth per year, approximately 500 MW of additional generation capacity will be required by 2012. It should be noted that actual load growth was relatively flat for fiscal 2002/2003.
2. DWP's renewables investment policy should be melded into an overall policy that responsibly balances environmental objectives like fuel diversity, energy efficiency and clean air against DWP's core responsibility to distribute safe, reliable and low cost energy to its customers.
3. DWP's Renewable Energy Option (REO) funds, which are a voluntary contribution from customers for Green Power, have exclusively been used to support marketing, operations and maintenance expenses. The REO ordinance should be amended to ensure that all money collected is used for renewable energy investments.

4. DWP possesses a wide diversity of power plants. DWP's policy should be crafted to use renewables as a hedge against market volatility as well as to provide sufficient reserves to ensure system reliability and security benefits.
5. DWP should also be encouraged to continue to find ways to support energy related economic development as well as business attraction/retention opportunities without compromising its financial condition or unfairly burdening customers.
6. With approximately \$60 million in Public Benefits funding available annually and existing commitments of up to \$16 million per year on renewables, \$15 million on energy efficiency, \$5 million on electric cars, scooters and buses and \$24 million on low income subsidies, there does not appear to be sufficient monies going forward to fund a renewables program from PB funds alone.
7. Cost/benefits of various renewable technologies vary dramatically. DWP needs to develop and apply investment criteria to ensure that future renewable investments are the lowest cost, environmentally conscious and beneficial to system integrity and not abandon projects designed to enhance performance like the in-basin and castaic pumped storage repowering projects.
8. Renewable and non-renewable power generation investments need to be analyzed to determine the projected impacts on customer rates, reliability and core service offerings.

#### **RECOMMENDATIONS:**

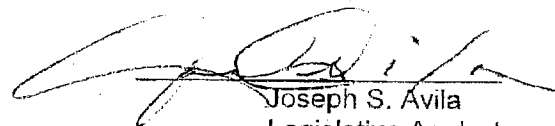
That the Council request that Board of Water and Power Commissioners forward to City Council within 60 days a formal and clearly defined Power Investment Plan and Policy that:

1. Justifies new power related capital investments regardless of fuel source or generation type based upon: (i) Reliability/Performance; (ii) Cost/Benefit to Ratepayers; and, (iii) Relative Air Quality Benefits
2. Enables the Department of Water and Power (DWP) to generate sufficient revenues to fund and achieve 20% of electricity generated by renewable energy resources as a specified percentage of total kilowatthours sold to retail end-use customers by 2017.
3. Ensures that the cost of renewable investments do not exceed 125% of available, comparable alternatives given the nature of the power investment (i.e. baseload, intermediate, peaking, emergency spot purchases, etc.).

4. Caps DWP capital investments, regardless of fuel type and technology at 125% of the utility's projected customer load requirements including reserves in conformity with prudent utility practice on a 10 year rolling average.
5. Includes definitive strategies for increasing both long and short-term renewables purchases and identifies resultant rate and customer bill impacts.
6. Facilitates a wide range of investment alternatives including:
  - ▶ Renewables;
  - ▶ Clean air initiatives such as the in-basin repowering and the Alternative Maritime Power (AMPS) programs;
  - ▶ Energy efficiency programs including Cool Schools, HVAC and commercial refrigeration ("Chiller") program;
  - ▶ Low Income program support;
  - ▶ Customer Billing System modifications including changes to ECAF, tiered pricings or similar demand side management programs, products and incentives.
7. Includes mechanisms designed to allow for cost recovery associated with renewable energy purchases including capital cost, transmission and delivery charges.
8. Amends DWP's existing voluntary customer Renewable Energy Option (REO) to ensure that 100% of future customer contributions are used solely for renewable energy investments and identifies a revenue source to match voluntary REO customer contributions of up to \$10 million annually.
9. Establishes a Renewables Trust Fund for collection and distribution of renewable energy cost recovery funds, including all public benefits monies and voluntary customer contributions, but not including low income subsidy and energy efficiency funds.

#### FISCAL IMPACT STATEMENT

This item will not impact the General Fund.

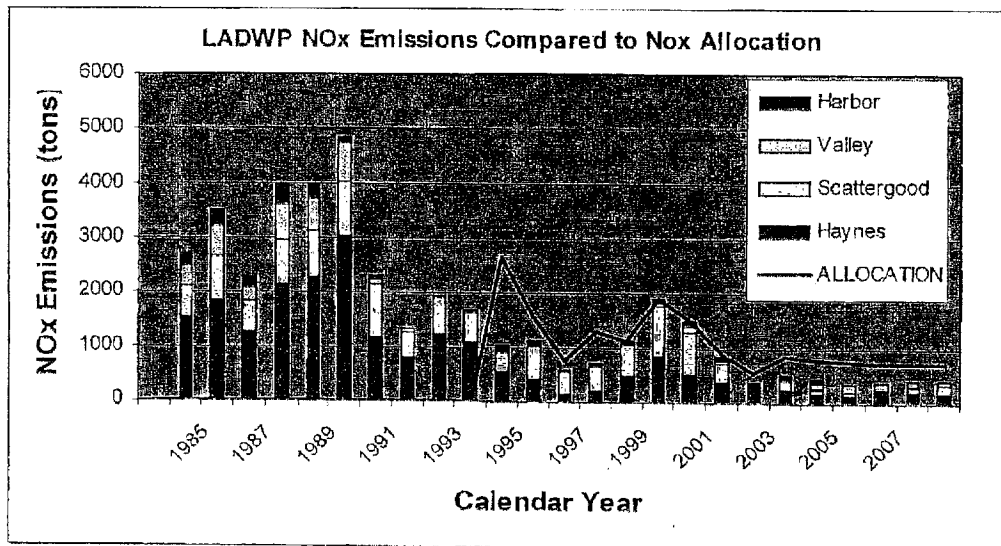
  
Joseph S. Avila  
Legislative Analyst

## BACKGROUND/FINDINGS

### GENERATION PROFILE

In the late 1990's, DWP began a conversion of its gas-fired power plants to efficient, combine-cycle natural gas-fired power plants with state-of-art emission controls and refurbishment of the Castaic pumped storage hydro facility. According to DWP's most recent Integrated Resource Plan (IRP), this conversion or "repowering" effort will result in an expenditure of nearly \$2 billion and is expected to yield substantial reliability, economic and environmental benefits. The repowering of DWP's in-basin gas units boosted electricity output and substantially decreased emissions including NOx reductions of more than 70% over the last three years.

Below is a chart showing all DWP's historical and estimated Nox emissions based on 2002 base case study data.



The City's ownership of generation assets took on special significance during the recent energy crisis when California investor owned utilities (IOU) were forced to rely on spot market energy purchases to meet customer electricity demand following divestiture of substantial portions of their generation capacity as required by the State's deregulation legislation (i.e. AB 1890).

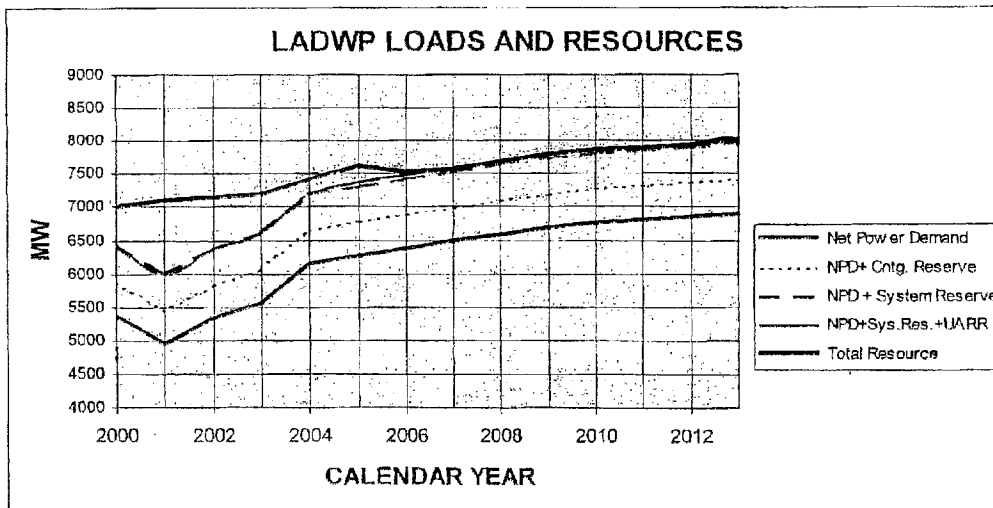
Below is a chart showing all DWP generating resources including their respective names, fuels types and locations.

LADWP GENERATION RESOURCES			
Plant Name	Resource Type	Maximum Plant Capacity (MW)	Location
Palo Verde	Nuclear	368	AZ
Mohave	Coal	158	NV
Castaic Pump Storage	Hydro	1,175	CA
Intermountain Units 1 & 2	Coal	1,165	UT
Owens Gorge, LA Aqueduct, Hoover Harbor	Hydro	701	CA
Haynes	Natural Gas	466	CA
Scattergood	Natural Gas	1,348	CA
Valley	Natural Gas	803	CA
Navajo	Natural Gas	578	CA
	Coal	477	AZ
Lopez Canyon (Microturbines)	Landfill Gas	1.5	CA
Conv. Ctr, JFB prkg. lot, Our Lady of the Angels, Woodbury College	Solar	0.6	CA
JFB facility & Terminal Island	Fuel Cell	0.5	CA
<b>Total Current Resources</b>		7,242	
BioConverter Project [1]	Biogas	40	CA
Pine Tree [2]	Wind	120	CA
<b>Total Projected Resources</b>		7,402	
[1, 2] LADWP currently in negotiation on two renewable energy projects.			

#### Generation Supply/Demand

Today DWP controls about 7,200 megawatts (MW) of plant capacity. One MW is roughly enough generation capacity to support 750 single-family residences. DWP's generation capacity is capable of supporting from 117% to 123% of customer electricity demand or "load" over the next several years, but an additional 500 MW (150MW repowerings, 160MW renewables, 200MW DSM) of capacity is projected to be required by 2012. According to the fiscal 2000 IRP, DWP's historic load growth rate is about 1.4% annually or about 40% of the current State average of about 3.4%. By design, DWP maintains about a 1,100 MW capacity reserve. DWP's 17% to 23% capacity reserve margin compares favorably with the 15% to 17% requirement set forth under Western Electricity Coordinating Council (WECC) Reliability Standards and serves to lessen the City's dependence on the volatile spot market or neighboring utilities for electricity. This reserve strategy also enables DWP to take electric generating plants off line periodically for routine or non-routine maintenance to meet contingencies and still provide for all customer electricity requirements from its own generation resources.

Below is a chart showing DWP's load profile in 2001 which projected fiscal 2003 net customer demand for capacity at about 5,800 MW.



#### Generation Types

DWP's electric generating plants can be broken into three basic categories: base, intermediate and peak load units. Base load units are by definition DWP's most reliable and low cost units capable of operating year-round on essentially a 24/7 basis. DWP's base load units which include its coal, nuclear and hydroelectric power plants are relatively more expensive to build than either intermediate or peak load units, but with asset lives that routinely exceed 30 years, these plants are the utility's lowest cost and most reliable resources.

DWP's intermediate plants take less time to bring on-line than its base load plants but longer than peaker plants some of which are designed to be fully operational within a matter of minutes. DWP's intermediate load requirements are mainly provided for by its combined-cycle, gas-fired units located in the Los Angeles basin. Although DWP's intermediate load units can be two to three times more expensive than base load generation plants, the economics of its in-basin, gas-fired units are expected to benefit from the repowering program currently underway which is projected to reduce electricity fuel costs by up to 35%.

DWP's peaker plants located at the Harbor and Valley Generating Stations can be deployed very quickly when compared to either intermediate or base load plants, but are generally more expensive to operate. Peeper plants also have comparatively low

capacity factors and are usually only used for short periods of time during hot summer days or to meet other routine system requirements. Capacity factors are a measure of the average number of hours a particular power plant is actually capable of producing electricity. For example, base load plants typically have average capacity factors in excess of 80% which equates to roughly 20 hours of run time per day as compared to approximately 2 to 5 hours a day for peaker units. Below is information illustrating the typical costs, economic life and capacity factors of different resource types.

TYPICAL ENERGY RESOURCE PROFILES [1]				
RESOURCE TYPE	GENERATION TYPE	ECONOMIC LIFE (Years)	CAPACITY FACTOR (%)	ENERGY COST (cent/kwh)
Combined Cycle - Gas	Intermediate/Base	30	80-95	3.5 - 6.0 [2]
Simple Cycle -Gas	Peak	30	10-90	6.0 - 17.0 [3]
Coal	Base	30	85-95	2.0 - 4.0
Wind [4]	Peak/Intermediate	30	27 - 36	5.0 - 6.5
Geothermal	Intermediate/Base	30	80 - 95	5.0 - 9.0
Landfill	Intermediate/Base	30	80 - 95	6.0 - 9.0
Biomass	Intermediate/Base	30	80 - 95	8.0 - 13.0
Solar / Thermal (gas-fired)	Intermediate/Base	30	18 -25	8.5 - 21.0
Photovoltaic [5]	Peak	30	18 - 25	40.0 - 60.0
Fuel Cell	Intermediate/Base	30	80 - 95	8.0 - 35.0
[1] "Comparative Costs of California Central Station Electric Generation Technologies,"				
CEC final Staff Report, June 5, 2003				
[2] Depends on gas prices. Gas price range from \$4.00 to 5.50 assumed.				
[3] Depends on capacity factor and gas prices.				
[4] Transmission may already exist.				
[5] Actual DWP solar costs based on sampling of 6 installations was 82 cents/kwh on 9/03.				

DWP's coal-fired power plants including Mohave, Intermountain and Navajo have average electricity costs ranging from 1.8 to 2.9 cents/kwh or half the average cost of DWP's in-basin, gas-fired plants which is about 4 cents/ kwh. In order to keep customer's electricity prices as low as possible, DWP dispatches its generation units from the lowest to highest cost unit while taking into account the emissions of each power source until 100% of daily customer load requirements are satisfied. As such, because of its relative low cost and reliability coal-fired electricity makes up about 48% of DWP's total electricity consumed even though these units represent only 24% of available capacity. DWP routinely uses another cost saving strategy of purchasing surplus electricity from the wholesale market. These purchase power or economy electricity purchases represent surplus energy from neighboring utilities that becomes available from time to time at prices which can be substantially lower than DWP's cost of production. In fiscal 2002, economy electricity purchases accounted for 17.1% of DWP's electricity. Purchase power are primarily low cost, off-peak and super off-peak

hour transactions with many transactions executed at or below 3 cents/kwh, requiring delivery on a day to a month ahead basis. DWP has purchased wind, hydro and geothermal energy on the spot market.

## RENEWABLE ISSUES

### Public Benefits Program

The Public Benefits (PB) program guidelines require investments of not less than the lowest expenditure of the 3 largest investor owned utilities in California. Based on these guidelines, funding for the PB program has been collected annually at a rate of 2.85% of DWP's retail Power Fund Revenues plus any interest earned on those funds. To date, the PB Program has collected approximately \$60 million per year with DWP having set aside over \$330 million since the program's inception about 5 years ago. DWP's Board recently voted to extend the PB Program which will make available an additional \$550 million in set asides through 2012. The Board of Commissioners adopted four program initiatives as the framework for DWP's Public Benefits program. These initiatives include funding for renewables technology, research and development, energy efficiency as well as in support of low income programs. Below is a summary of total PB funding allocations to date:

Public Benefits Funding (FYE 1998 ~ 2003)	
	(In millions)
Demand side management/Energy Efficiency	\$80.8
Renewable Technology	\$55.8
Research and Development	\$60.9
Low Income Subsidy	\$130.6
Program Operations and Administration	\$6.7
<b>TOTAL EXPENDITURES</b>	<b>\$334.8</b>

### Renewables Investments

Although DWP's capacity to produce renewable energy accounts for approximately 10% of the utility's 7,200 MW of total available capacity, only one percent in renewables capacity has been added since the inception of the PB program. The composition of DWP's electricity resource capacity remains virtually unchanged despite additional research and development and renewable technology investments totaling approximately \$117 million from the PB program. According to DWP staff, the utility has added about 3 MW of renewable capacity since PB program's inception including the 1.5 MW Lopez Canyon micro turbine project, four 250 kW fuel cell installations at DWP facilities and solar installations totaling approximately 1 MW located throughout the City. In addition to the existing renewable capital investments, DWP is also in

negotiations on a 40 megawatt biogas-fired project, a 30 MW geothermal project and a 120 megawatt wind energy facility.

In addition to the aforementioned renewables and R&D funding, the PB program has invested over \$80 million in demand side management and energy efficiency programs which helped offset a share of new customer electricity demand. The remaining \$131 million of PB funding was spent in support of DWP's low income program which reduces a typical customer bill by 15-50%, depending on a family's usage. Below is a chart showing DWP's renewable investments including the wind and biomass project which are currently in negotiation.

PROJECT NAME	FUEL TYPE	PROJECT SIZE (Kilowatts)
Los Angeles Convention Center	Solar	400
JFB Parking lot	Solar	150
JFB Fuel Cell	Fuel Cell	250
Terminal Island Fuel Cell	Fuel Cell	250
Cathedral of Our Lady of the Angels	Solar	66
Lopez Canyon	Landfill Gas (Microturbines)	1,500
Current Renewable Investments		2,616
Bioconverter	Biogas	40,000
Pine Tree	Wind	120,000
Pending Renewable Investments		160,000

Last year DWP's Board approved an increase in solar power funding from \$16 million to over \$160 million through 2011. The Board's approval of this strategy means that a substantial part of future PB funds will not be available to support other renewable resources like wind, hydro, biomass or geothermal. A sampling of electricity prices from DWP owned solar installations averaged over 80 cents per kilowatt hour. Because the solar buy-down program customer commitments exceeded the PB budget for fiscal 2003, DWP's Board elected to stop taking new solar buy-down commitments on June 24, 2003. It should be noted that a sampling of DWP's solar power installations revealed costs per kilowatt hour roughly twice that of the published market cost. While even the market cost makes solar power prohibitively expensive and an unlikely significant component of DWP's energy portfolio, investigation and analysis is called for to determine why DWP's solar costs appear so excessive.

Below is a comparative sampling of actual energy costs and performance profiles of various solar powered and conventional plants owned by DWP.

SOLAR	DESIGN CAPACITY (In kw)	ACTUAL CAPACITY (1) (In kw)	ACTUAL CAPACITY (2) (%)	ELECTRICITY PRICE (3) (In cents/kwh)
Neutrogena	315.9	159.3	50.4%	66.7
Frito-Lay (Sylmar)	107.5	64.4	59.9%	50.8
Frito-Lay (Torrance)	107.5	53.4	49.7%	68.5
JFB Parking Lot	151.0	68.3	45.3%	88.8
Convention Center #1	250.0	71.8	28.7%	128.6
Convention Center #2	150.0	55.5	37.0%	89.9
<b>Average</b>	<b>180.3</b>	<b>78.8</b>	<b>45.2%</b>	<b>82.2</b>
[1] Output of facility based on actual LADWP meter data dated 9/30/03				
[2] Percentage of power actually produced by the unit relative to its design or "nameplate" capacity.				
[3] Electricity prices assume 20 year asset life of solar installations and 20% average capacity factor.				
CONVENTIONAL	DESIGN CAPACITY (In kw)	ACTUAL CAPACITY (In kw)	ACTUAL CAPACITY (%)	ELECTRICITY PRICE (In cents/kwh)
Valley - Natural Gas [4]	533,000	533,000	100.0%	3.7
Haynes - Natural Gas [4]	575,000	575,000	100.0%	3.7
Intermountain - Coal	1,850,000	1,755,000	94.9%	2.9
Navajo - Coal	477,000	477,777	100.2%	1.8
Mohave - Coal	158,000	142,200	90.0%	2.4
<b>Average</b>	<b>718,600</b>	<b>696,595</b>	<b>97.0%</b>	<b>2.9</b>
[4] Combination of combustion and steam turbines				

### GreenLA Program

In addition to the Public Benefits funding mechanism described above, the City Council adopted the GreenLA Renewable Energy Option (REO) ordinance. The REO ordinance represents a voluntary surcharge where DWP customers pay a premium of about 3 cents/kilowatt hour to DWP to be used to purchase renewable electricity. There are approximately 30,000 customers signed up for the program including several City departments such as DWP's Water System Organization, the Airport and Harbor. City department's program contributions comprise roughly half of the \$8.4 million in GreenLA revenues collected to date. Based on the City Controller's audit findings, all REO funds were used to support marketing, operations and maintenance expenses with little of the money received actually spent on renewable electricity purchases.

## POLICY ISSUES

### AB 1890

The state's deregulation legislation known as AB 1890 required that IOU's divest themselves of all electric power generation facilities, transfer their transmission capacity to the State's Independent System Operator (Cal-ISO) and invest a portion of their revenues in renewable energy. Prior to deregulation, generation capacity reserves were required of all utilities to protect against unscheduled power plant outages as well as to provide for anticipated seasonal spikes in electricity demand. In the wake of the effects of energy crisis on California utilities and their customers and recent blackouts experienced in the Northeast, IOU's are reconsidering the generation capacity divestiture strategy.

### Renewables Portfolio Standard

California's RPS legislation (SB 1078/SB 532) mandates investor owned utilities (IOU) increase their total annual retail power sales as a specified percentage of total kilowatt hours sold to retail end-use customers each calendar year from renewable resources by at least 1% per year with a goal of attaining 20% aggregate annual purchases by 2017. Municipal utilities, while exempt from the specific provisions in the RPS, are required to implement and enforce a renewables portfolio standard that recognizes the intent of the legislation while taking into consideration the effect on rates, reliability, and financial resources and the goal of environmental improvement. Each municipal utility shall report, on an annual basis, to its customers, all expenditures of public goods funds (ie Public Benefits Program) collected pursuant to Section 385 for renewable energy resource development. Reports shall contain a description of programs, expenditures, and expected or actual results as well as the resource mix used to serve its customers by fuel type. These Reports shall also contain the contribution of each type of renewable energy resource with separate categories for those fuels considered eligible renewable energy resources.

Some renewable technologies, like geothermal, are able to handle base load requirements, but others, such as solar and wind, are non-firm peaking or intermediate load resources. Accordingly, conventional power plants and related infrastructure are still needed since baseload units do not depend on the wind or sun to produce electricity. Finally, the cost of renewable energy continues to be higher than conventional electric power generation. However, in evaluating the cost of renewable power, the cost needs to be matched with the nature of the power with which the renewable power is competing. For example, the cost to power up peaking plants is generally much more than base load units. Therefore, if power for peaking purposes is needed, the decision as to whether to purchase or produce renewable power should be based on a comparison of its costs with peak power costs, not base load or average system costs. Each renewable source of electricity has a different contribution to the

DWP's energy and capacity. Hence each proposal needs to be evaluated accordingly. Also, it is important to note that some projects require additional transmission capacity. These costs must be factored into the cost for that proposal.

### RPS Cost Impact

The cost impact of meeting the 20% RPS requirement will vary depending on the mix of resource types and the associated costs. For comparison purposes, the chart below illustrates the first year cost assuming a 1% investment based on a mix of renewable resources as well as for various individual resources. The projected cost impact for the "mixed resource" scenario represents a virtual "green" portfolio based on Southern California Edison's renewable resource mix. The individual resource examples are for illustration purposes only as it would appear infeasible to meet the 20% RPS requirement from any single resource. The calculations are as follows:

LADWP RPS DEVELOPMENT STUDY ASSUMPTIONS						
Data Assumptions						
	Selected Costs \$/MWh	Capacity Factor	Energy Mix	1st Year Cost \$/MWh	Wt. Ave. Energy Cost	
<b>SCE Resource Mix</b>						
Wind	42.00	35%	15.80%	\$42.00	\$6.64	
Geothermal	60.00	95%	57.90%	\$60.00	\$34.74	
Biomass	55.00	95%	10.50%	\$55.00	\$5.78	
Solar (Thermal)	100.00	20%	5.30%	\$100.00	\$5.30	
Small Hydro (<30 MW)	30.00	35%	10.50%	\$30.00	\$3.15	
Total			100.00%		\$55.60	
DWP Avoided Cost/Retail Electricity Rate	40.00					
RPS estimated cost escalation	2.5%					
DWP estimated total energy sales (GWh)	22,926					
Estimated annual % investment	1.00%					
Incremental energy sales (MWh)	229,260					
Resource Type	Selected Costs \$/MWh	1% of total energy sales (MWh) [3]	1st Yr. Est. DWP Avoided Cost	1st Yr. Renewable Cost	Above Market Cost [1]	
DWP Avoided Cost/Retail Electricity Rate	40.00					
Mixed Resources	55.60	229,260	\$9,170,400	\$12,747,085	\$3,576,685	
Wind	42.00	229,260	\$9,170,400	\$9,628,920	\$458,520	
Geothermal	60.00	229,260	\$9,170,400	\$13,755,600	\$4,585,200	
Biomass	55.00	229,260	\$9,170,400	\$12,609,300	\$3,438,900	
Solar (Thermal)	100.00	229,260	\$9,170,400	\$22,926,000	\$13,755,600	
Solar / Photovoltaic [2]	820.00	229,260	\$9,170,400	\$187,993,200	\$178,822,800	
Small Hydro (<30 MW)	30.00	229,260	\$9,170,400	\$6,877,800	-\$2,292,600	
[1] Estimated above market costs do not include stranded investment costs.						
[2] Solar/PV prices based on sampling of 6 DWP owned installations which reported costs at 82 cents/kwh based on data for 9/30/03						
[3] Estimated load growth based on DWP Retail Energy and Demand Forecast approved by the Board on May 1, 2003.						

Based on this hypothetical scenario, DWP adherence to the RPS requirement is estimated to result in an incremental cost of service of \$3.5 million in the first year. This amount would compound and the DWP estimates that by the time the 20% threshold is reached in approximately 2017, the annual incremental cost of service would be

approximately \$280 million. A diversified energy portfolio that includes renewables reduces the risk of price spikes and blackouts due to natural gas or coal market manipulation and supply shortages. Accordingly, incorporating RPS assets into DWP's portfolio to meet load growth or in lieu of economy purchases, subject to pricing and funds availability, is a prudent course of action.

## BUDGET ISSUES

On May 23, 2003, your Committee heard a presentation from DWP staff on the proposed 2003-2004 budget during which several issues were discussed. The key areas of concern cited by DWP budget staff included the potential impact of recent natural gas price hikes, solar power commitments and employee health care and pension fund cost increases. Based on these factors, DWP Power System net income for fiscal 2003-2004 is projected to be substantially lower than in previous years providing little contingency income to offset unforeseen cost increases. Moreover, with approximately \$60 million in Public Benefits funding available annually and existing commitments of at least \$16 million per year on renewables, \$15 million on energy efficiency, \$5 million on electric cars, scooters and buses and \$24MM on low income subsidies, there are limited monies available to fund an RPS program. Material issues identified include:

1. **Natural Gas Purchases** - DWP reported that the utility may have to pay nearly \$110 million more in fuel costs in fiscal year 2003-2004 due to sharply increased natural gas prices. Principal concerns stem from the fact that gas prices had nearly doubled since September 2002 rising to over \$6.00 million British Thermal Units (MMBtu) as of May 22, 2003. In response to concerns raised by your Committee, DWP affected financial hedges totaling over 70% of its annual needs at prices averaging less than the \$5.50MMBtu natural gas estimate projected for the fiscal 2003/2004 fuel budget. Due to the hedging mechanisms, the DWP now expects no adverse fiscal impact.
2. **Staffing Cost Increase** - DWP will experience about a \$70 million employee cost of living adjustment of which about \$40 million are recurring costs stemming from recently settled labor contracts, increased health care and pension fund liabilities.
3. **Wind Power Investments** - DWP is planning to invest over \$90 million next fiscal year and at least \$70 million in the subsequent year in support of a 120 megawatt wind power project. For expense purposes, these costs will be levelized over the expected useful life of the asset.
4. **Solar Investments** - DWP intends to invest approximately \$16 million per year over the next ten years in support of solar powered electricity, or roughly \$160

million through 2011. This is in part to pay for a backlog of over \$109 million in "unconfirmed" customer reservations waiting to be funded.

## **DIFFERENCES BETWEEN IOUs AND DWP**

Prior to passage of AB 1890 (electric power deregulation), California utilities were mandated to own or control 100% of the generation capacity needed to meet customer demand within their respective franchise territories. A core element of AB 1890 was the requirement that all IOU's divest themselves of generation ownership presumably to foster competition and lower energy prices for consumers. As a result, IOU's were forced to purchase virtually all of their electricity from the market. As a municipal utility, DWP exercised the option not to deregulate which enabled it to continue to provide low cost, reliable power to its 1.4 million customers during the 2000/2001 energy crisis. In fact, during the crisis DWP was called upon by the Governor to provide surplus electricity from power plants, many of which were undergoing scheduled maintenance and/or repairs, in an effort to avoid blackouts for customers of other utilities across the State.

As a result of AB 1890, IOU customers are no longer paying for the generation assets which were sold off to meet requirements of the legislation. The most serious risk to the DWP posed by the RPS' requirement for utilities to purchase 20% of retail generation from renewable resources, is the stranding of existing DWP capital investments in generation and transmission assets. To the extent development of new renewable power plants is not needed to provide for native load or reserve capacity, DWP customers would in essence, have to pay twice for the same generation capacity. Some renewables need to be backed by existing sources in order to insure reliability.

## **POWER INVESTMENT EVALUATION MECHANISM**

DWP needs to establish financial models and key financial assumptions to facilitate analysis on a deal by deal basis prior to committing to any long-term, generation related investments (i.e. over one-year in duration) regardless of technology or fuel type. The analysis should, at a minimum be capable of determining the fiscal impact of an individual investment on customer rates based on the cost, performance and reliability profile of the particular resource investment. DWP should explore developing a pass-through charge that would automatically provide for any revenue shortfalls in support of its renewables program. Since there are varying performance levels for different power sources renewable or not - expenditures in renewables should be capped at 125% or less than conventional sources. Also, since DWP already has more than sufficient capacity to meet its current and projected needs for the next decade, new capacity investments should not exceed 125% of native load requirements. Capacity reserve investments above this level would be unnecessary. The combination

of forecast analysis before each capital investment and on-going tracking of performance ratios would enable the Board, City Council and the Mayor as well as the public the opportunity to come up with a measured response to the RPS.

Below is a chart containing a sampling of comparative costs of renewable versus conventional generation units owned by DWP on a dollar per kilowatt basis.

COMPARATIVE PRICING FOR DWP-OWNED RENEWABLES VS CONVENTIONAL PROJECTS				
PROJECT NAME	FUEL TYPE	PROJECT SIZE (Kilowatts)	CAPITAL COST (Millions)	COST PER KW
Los Angeles Convention Center	Solar	400	\$8.3	\$20,750
JFB Parking lot	Solar	150	\$3.0	\$20,000
JFB Fuel Cell	Fuel Cell	250	\$3.4	\$13,600
Cathedral of Our Lady of the Angels	Solar	66	\$0.6	\$9,100
Loyola Marymount University	Solar	723	\$4.3	\$6,000
Lopez Canyon	Landfill Gas (Microturbines)	1,500	\$4.6	\$3,067
Pine Tree	Wind	120,000	\$162.0	\$1,350
Intermountain Power Project	Coal	1,760,000	\$2,112.0	\$1,200
Harbor GS	Natural Gas	235,000	\$198.6	\$845
Valley GS	Natural Gas	47,000	\$39.7	\$845
Valley GS	Natural Gas	533,000	\$372.5	\$699
Haynes GS	Natural Gas	575,000	\$355.0	\$617

RESOLUTION NO. 2003-71

A RESOLUTION OF THE LODI CITY  
COUNCIL APPROVING THE RENEWABLE  
ENERGY PORTFOLIO STANDARD (RPS)  
FOR THE CITY OF LODI ELECTRIC UTILITY

=====

WHEREAS, Senate Bill 1078 was signed into law September 12, 2002; and

WHEREAS, this law defines qualified renewable energy resources and sets forth the following RPS for retail electric sellers other than municipal utilities:

- (A) 20% of retail sales must be supplied by renewable resources by December 31, 2017; and
- (B) Retail sellers must increase renewable supply by at least 1% per year until the 20% target is reached.

WHEREAS, as a municipal electric utility, the Lodi Electric Utility is excluded from the Senate Bill, although the following requirements are mandatory:

- 1) Each municipal governing board is responsible for implementing and enforcing a local RPS that recognizes the Legislature's intent to encourage renewable resources, taking into consideration the effect on rates, reliability, financial resources, and the goal of environmental improvement.
- 2) Each municipal utility must report annually to its customers:
  - A) Expenditure of public benefits funds collected for renewable energy resource development; and
  - B) The resource mix by fuel type including each type of renewable resource.

WHEREAS, each municipal utility governing board must define the terms of its RPS. This would include determination of:

- A) What qualifies as a renewable resource (whether or not to include large hydro projects); and
- B) The percentage of the total energy resources that are to be renewable; and
- C) How quickly you plan to meet that goal.

WHEREAS, the City of Lodi currently receives approximately 48% of its power from renewable resources. More than 25% comes from the Northern California Power Agency (NCPA) geothermal plants, which are "eligible" renewable resources as defined in the California Public Utilities Code. Approximately 21% of Lodi's power supply comes from "large" hydroelectric facilities. The large hydroelectric projects combine water usage and electric power production in an environmentally sound manner. Hydroelectric power generation is certainly a renewable resource, and to the extent that environmental impacts are minimized and/or mitigated, staff believes that this resource should be included as contributing to a renewable portfolio. Staff also feels that the 30 MW limitation on hydro adopted by the State of California is arbitrary. For these reasons, it is recommended that Lodi's RPS be established to include large hydroelectric generation; and

WHEREAS, the stated intent of the subject legislation is to "encourage renewable resources." Staff believes that Lodi has already more than met that goal: it has succeeded in the development of renewable resources, supplying approximately 48% of its power from such resources while retaining competitive rates; and

WHEREAS, because of the uncertainty associated with the development of new generating sources, staff recommends that the renewable portfolio standard adopted by the City Council not be unduly restrictive or aggressive. It is recommended that the renewable portfolio goal be to provide in excess of 20% of Lodi's power supply mix from renewable resources, including large hydroelectric facilities.

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby approve the City of Lodi's Electric Utility Renewable Portfolio Standard (RPS), attached hereto marked Exhibit "A."

Dated: April 16, 2003

=====

I hereby certify that Resolution No. 2003-71 was passed and adopted by the City Council of the City of Lodi in a regular meeting held April 16, 2003, by the following vote:

AYES: COUNCIL MEMBERS – Beckman, Hansen, Howard, Land, and  
Mayor Hitchcock

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None

SUSAN J. BLACKSTON  
City Clerk

RESOLUTION NO. 2003-71

A RESOLUTION OF THE LODI CITY  
COUNCIL APPROVING THE RENEWABLE  
ENERGY PORTFOLIO STANDARD (RPS)  
FOR THE CITY OF LODI ELECTRIC UTILITY

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  - A) Expenditure of public benefits funds collected for renewable energy resource development; and
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Dated: April 16, 2003

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AYES: COUNCIL MEMBERS – Beckman, Hansen, Howard, Land, and  
Mayor Hitchcock

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None

SUSAN J. BLACKSTON  
City Clerk

## ***City of Lodi Electric Utility Renewable Portfolio Standard (RPS)***

### **RPS Objective:**

Meet the intent of Senate Bill 1078 to encourage renewable resources.

**Lodi's Qualified RPS Resources** are defined as non-fossil fueled electric generating resources, including all hydroelectric resources:

- Geothermal
- Hydroelectric

### **Lodi's RPS Target:**

Lodi's power mix will have a minimum of 20% of renewable resources. Renewable resources are defined as non-fossil fueled electric generating resources, including hydroelectric.

### **Reporting RPS Performance:**

Pursuant with SB 1078, Lodi Electric Utility will report in the annual power content label to be distributed to all Lodi Electric Utility customers:

- Expenditure of Public Benefit funds collected for renewable energy resource development.
- The resource mix by fuel type of renewable resources.

### **Ongoing Review:**

Lodi Electric Utility will regularly address changes in our power portfolio and potential changes in the renewable energy technologies.



**MODESTO IRRIGATION DISTRICT**  
**RENEWABLES PORTFOLIO STANDARD POLICY**

**DECEMBER 4, 2003**

**1. PURPOSE**

The purpose of this policy is to formally establish a Renewables Portfolio Standard that recognizes the intent of the Legislature to encourage renewable resources while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.

**2. COMPLIANCE WITH APPLICABLE LAW**

This policy is intended to implement California Public Utilities Code Section 387, which states:

387. (a) Each governing body of a local publicly owned electric utility, as defined in Section 9604, shall be responsible for implementing and enforcing a renewables portfolio standard that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.

(b) Each local publicly owned electric utility shall report, on an annual basis, to its customers, the following:

(1) Expenditures of public goods funds collected pursuant to Section 385 for renewable energy resource development. Reports shall contain a description of programs, expenditures and expected or actual results.

(2) The resource mix used to serve its customers by fuel type. Reports shall contain the contribution of each type of renewable energy resource with separate categories for those fuels considered eligible renewable energy resources as defined by Section 399.12.

**3. ELIGIBLE RENEWABLE ENERGY RESOURCES**

An Eligible Renewable Energy Resource is an electric generating facility that meets all of the following criteria:

- a. The facility uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and any additions or enhancements to a facility using these technologies.

- b. The facility is located in the State of California or the facility is located outside the State of California and is connected to the Western Electricity Coordinating Council (WECC) transmission system with a contractual requirement for delivery of electricity to the District under normal operating conditions.
- c. With the sole exception of an existing baseline eligible renewable energy resource, the municipal solid waste combustion facility located near the community of Crows Landing in Stanislaus County, “solid waste conversion” means a technology that uses a noncombustion thermal process to convert solid waste to a clean burning fuel for the purpose of generating electricity, and that meets additional criteria specified in Section 383.5 (C) of the California Public Utilities Code.
- d. A new small hydroelectric facility of 30 megawatts or less is not an Eligible Renewable Energy Resource if it will require an increased appropriation or diversion of water. A new small hydroelectric facility of 30 megawatts or less is an Eligible Renewable Energy Resource if it generates electricity using what would otherwise be the unrecovered potential energy of water lawfully appropriated or diverted for a primary purpose other than hydroelectric generation.
- e. A renewable energy resource that utilizes non-renewable fuels for a portion of its input energy is an Eligible Renewable Energy Resource if the use of non-renewable fuels is limited to 25 percent of the total input energy measured on an annual basis.

#### **4. RENEWABLES PORTFOLIO STANDARD TARGET**

The District’s electric resource planning criteria shall include a Renewables Portfolio Standard Target of an Eligible Renewable Energy Resources supply portfolio equal to at least 20 percent of annual retail energy sales in calendar year 2017.

#### **5. ANNUAL RENEWABLES PROCUREMENT TARGET**

The District’s electric resource planning criteria shall include an Annual Renewables Procurement Target to add new Eligible Renewable Energy Resources equal to at least 1.72 percent of annual retail energy sales in each year from 2004 through 2017 in order to meet the Renewables Portfolio Standard Target. Actual Eligible Renewable Energy Resources procurement in any individual year may be above or below this target due to discrete project or purchase considerations and the availability of sufficient District public benefit expenditure and voluntary renewable energy rate funding and possible federal funding for the Above Market Cost of Eligible Renewable Energy Resources.

## **6. PUBLIC BENEFITS POLICY COORDINATION**

- a. The District has previously established and maintains a Public Benefits Policy to fund investments in:
  - Cost-effective demand-side management services to promote energy-efficiency and energy conservation.
  - New investment in renewable energy resources and technologies consistent with existing statutes and regulations which promote those resources and technologies.
  - Research, development and demonstration programs for the public interest to advance science or technology which is not adequately provided by competitive and regulated markets.
  - Services provided for low-income electricity customer, including but not limited to, targeted energy efficiency service and rate discounts.
- b. This Renewables Portfolio Standard Policy is intended to coordinate with and complement the Public Benefits Policy in a manner that maximizes value to all customers.
- c. Accomplishment of the Renewables Portfolio Standard Target and Annual Renewables Procurement Target is dependent upon sufficient funding for the Above Market Costs of new Eligible Renewable Energy Resources from District public benefit expenditures, voluntary renewable energy rate premiums (Electric Rate Schedule DR) and possible federal funding sources. The District utilized renewable energy resource cost estimates from the Renewable Resources Development Report issued November 7, 2003 by the California Energy Commission in developing this Renewables Portfolio Standard Policy.

## **7. ABOVE MARKET COST**

- a. The Above Market Cost of a new Eligible Renewable Energy Resource is the estimated levelized cost (expressed in dollars per megawatt-hour) by which the estimated cost of the new eligible renewable resource exceeds the estimated cost of a comparable new non-renewable resource delivered at the point over the contract term (for purchases) or the project life (for projects). The Above Market Cost shall be estimated by the District's Electric Resources Division using best available estimating practices consistent with the practices used for other District business and risk management decisions.
- b. All recommendations to build or to procure new Eligible Renewable Energy Resources shall include an estimate of the Above Market Cost and shall be presented to the District's Board of Directors in open session with an opportunity for public comment prior to a final decision.

- c. All Board resolutions approving the construction or procurement of a new Eligible Renewable Energy Resource shall also approve the Above Market Cost for the project or procurement. All subsequent calculations of the public benefit expenditures for that resource shall utilize the approved Above Market Cost and the actual energy delivered from the new eligible renewable energy resource at the delivery point specified in the estimate of Above Market Cost.
- d. The Above Market Cost of an Eligible Energy Resource may also be determined through a program for tracking and verification of renewable energy certificates if an applicable program is developed by the State of California.

## **8. BASELINE ELIGIBLE RENEWABLE ENERGY RESOURCES**

The Stone Drop Electric Generation Station is located on the District's main irrigation canal in unincorporated Stanislaus County east of the City of Waterford. This 230 kilowatt District owned and operated small hydroelectric facility entered commercial operation in 1983. The Stone Drop Electric Generation Station was installed at a pre-existing drop in the MID main irrigation canal and utilizes the potential energy of water released for irrigation and flood control purposes. The annual normal water year generation output of approximately 700 megawatt-hours is distributed to retail customers through the District's 12 kV electric system. Stone Drop is designated as a Baseline Eligible Renewable Energy Resource and its annual maintenance, operation and capital improvement costs are considered public benefit expenditures.

## **9. RENEWABLE ENERGY RATES**

The District presently offers a voluntary renewable energy rate option to residential customers (Electric Rate Schedule DR) and may offer voluntary renewable energy rate options to other customer classes in the future. All voluntary renewable energy electric rate revenue in excess of the otherwise applicable electric rate revenue will be added to scheduled renewable energy public benefit expenditures and any applicable federal funding, and will increase the total funding available for the Above Market Cost of new Eligible Renewable Energy Resources.

## **10. CUSTOMER ELIGIBLE RENEWABLE ENERGY RESOURCES**

The District's investments in Eligible Renewable Energy Resources are intended to benefit all District electric customers without creating undue subsidies to a small group of customers at the expense of other customers. The District will cooperate fully with customer installation of Eligible Renewable Energy Resources on the customer side of the meter in accordance with District Electric Service Rules and Regulations and applicable law. The District will utilize customer-owned Eligible Renewable Energy Resources to meet the District's Renewables Portfolio Standard Target only when authorized by written agreement with the customer.

## **11. PLANNING AND BUDGETING**

Renewable resources planning and budgeting will be integrated with the District's regular electric resource planning and budgeting process. The Above Market Costs of new Eligible Renewable Energy Resources are considered to be a "new investment in renewable energy resources" and will be budgeted and reported consistent with this Policy and the Public Benefits Policy.

## **12. REPORTING**

A report to the District's customers on expenditures of public benefit revenues collected for all purposes, including renewable energy resource development expenditures, programs and expected or actual results, will be included in the annual Public Benefits Report. The District will also provide an annual report of the resource mix used to serve its customers by fuel type, including the contribution of each type of renewable energy resource with separate categories for those fuels considered Eligible Renewable Energy Resources.

## **REFERENCES**

California Public Utilities Code, Sections 387, 383.5, and 399.12

Revised Modesto Irrigation District Electric Utility Public Benefit Policy, August 26, 2003.

Renewable Resources Development Report, California Energy Commission Committee Final Report, November 7, 2003, 500-03-080FD

#

**TO: HONORABLE CITY COUNCIL**

**FROM: CITY MANAGER** **DEPARTMENT: UTILITIES**

**DATE: OCTOBER 21, 2002** **CMR: 398:02**

**SUBJECT: REQUEST FOR THE APPROVAL OF ELECTRIC PORTFOLIO  
PLANNING GUIDELINES FOR THE LONG-TERM ELECTRIC  
ACQUISITION PLAN (LEAP)**

This memorandum is attached to CMR:398:02 to include recommendations made by the Finance Committee on October 1, 2002.

At the October 1, 2002 meeting, the Finance Committee discussed the proposed LEAP Guidelines and made changes that have been incorporated into the attached version of the proposed guidelines. Guideline #6, relating to investments in renewable energy technologies, was amended to state that the City pursue an expected target level of new renewable purchases of 10% of the expected portfolio load by 2008 with the retail rate impact not to exceed 0.5 cents/kWh on average, and to move to a 20% target by 2015, contingent on economic viability.

**ATTACHMENTS**

- A. CMR:398:02 Request for the Approval of Electric Portfolio Planning Guidelines for the Long-term Electric Acquisition Plan (LEAP) with all attachments
- B. Proposed Long-term Electric Acquisition Plan Guidelines (October 7, 2002 draft)

**PREPARED BY:**

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Jane Ratchye, Senior Resource Planner

**DEPARTMENT HEAD:**

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**JOHN ULRICH**  
Director of Utilities

**CITY MANAGER APPROVAL:**

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**FRANK BENEST**  
City Manager

**Proposed Long-term Electric Acquisition Plan (LEAP) Guidelines  
(October 7, 2002 Draft version)**

**Guideline 1: Electric Portfolio Dependence on Western** – While maintaining the flexibility to adopt favorable ‘custom products’ offered by Western, manage a supply portfolio independent of Western beyond the Base Resource Contract.

**Guideline 2: Hydro Risk Management** – Manage hydro production risk by:

- A. Planning for an average hydro year on a long-term basis;
- B. Diversifying to renewable and/or fossil generation technologies; and
- C. Maintaining adequate supply rate stabilization reserve.

**Guideline 3: Market Risk Management** – Manage market risk by adopting a portfolio strategy for electric supply procurement by:

- A. Diversifying energy purchases across commitment date, start-date, duration, suppliers, pricing terms & fuel sources;
- B. Targeting additional thermal plant ownership/investment commitment at ~25 MW but in no event more than 50 MW;
- C. Maintaining a prudent exposure to changing market prices by:
  - 1. Procuring resources at fixed price for at most 90% of expected load for 2 or more years out, assuming average hydro conditions; and
  - 2. Procuring resources at fixed price for at most 75% of expected load for 5 or more years out, assuming average hydro conditions; and
- D. Avoiding contract-based fixed price energy purchases (except for contracts for renewable resources) for durations greater than 10 years.

**Guideline 4: Reliable & Cost Effective Transmission Services** – Ensure the reliability of supply at fair and reasonable transmission cost by:

- A. Supporting, through political and technical advocacy and/or direct investment, the upgrading of Bay Area transmission to improve reliability and relieve congestion;
- B. Participating in transmission market design to ensure that market design results in workable competitive markets & equitable cost allocation;
- C. Pursuing the option of forming and/or joining a Public Power Transmission Control Area to increase control over transmission operations and related costs; and
- D. Ensuring PG&E honors the Stanislaus Commitments by providing to us firm-transmission rights or equivalent.

**Guideline 5: Local Generation** – Monitor the potential of local generation options to meet customer needs, improve local reliability, minimize congestion and wheeling charges, and stabilize/reduce costs.

**Guideline 6: Renewable Portfolio Investments** – The City shall continue to offer a renewable resource-based retail rate for all customers who want to voluntarily select an increased content of renewable energy. In addition to the voluntary program, the City shall invest in new renewable resources to meet the City's sustainability goals while ensuring that the retail rate impact does not exceed 0.5 ¢/kWh on average. Pursue a target level of new renewable purchases of 10% of the expected portfolio load by 2008 and move to a 20% target by 2015, contingent on economic viability. The contracts for investment in renewable resources are not to exceed 30 years in term.

**Guideline 7: Electric Energy Efficiency Investments** – Offer quality Public Benefits programs, utilizing funds collected through the 2.85% Public Benefits charge embedded in electric retail rates, to meet the resource efficiency needs of customers. Additional funding for cost-effective programs will be recommended as appropriate. Pursue these investments by:

- A. Providing expertise, education and incentives to support cost-effective customer efficiency improvements;
- B. Demonstrating renewable and/or alternative generation technologies and new efficiency alternatives; and
- C. Providing rate assistance and efficiency programs to low-income customers.

# **Pasadena Water and Power**

## **Renewable Portfolio Standard (RPS)**

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### ***Background***

State Senate Bill 1078 (SB-1078) was signed into law on September 12, 2002 and became effective January 1, 2003. The legislation modifies the California Public Utilities Code to include a specific renewable resource requirement for investor owned utilities (IOUs), and also includes provisions that apply to publicly owned utilities such as Pasadena Water and Power (PWP).

The provisions of SB-1078 applicable to PWP include requirements that:

- The governing body implement and enforce a renewable portfolio standard to encourage renewable resources
- Publicly owned utilities report annually to their customers the following:
  - The amount of public benefit funds spent on renewable resources
  - The resource mix used to serve the customers
- Each municipal utility governing board must define the terms of its RPS. The terms would include:
  - What qualifies as a renewable resource (i.e. whether or not to count large hydroelectric projects (in excess of 30MW))
  - The percentage of the total energy resources that are to be renewable
  - The time frame in which to meet the “goal” of the defined standard

The City of Pasadena supports a broad range of energy conservation, energy efficiency, electric technology, low income, and renewable generation programs, as described in the Public Benefits Program approved by City Council on December 2, 1997. The City of Pasadena intends to continue its support of this broad range of programs, thus encouraging wise use of energy resources, especially renewable energy generation.

The City Council adopted the PWP Power System Strategic Resource Plan on November 19, 2001. The Strategic Resource Plan was developed in response to regional power shortages, energy price volatility, and a need to reduce air emissions. It serves as a guide for developing PWP’s portfolio of power supply and transmission resources (Portfolio) to meet PWP’s goals of reliable service, stable rates, competitive energy pricing, and environmental stewardship. In recognizing an obligation to reliably serve its customers, the Strategic Plan calls for maintaining adequate planning reserves with a diverse portfolio of resources and local generation.

# **Pasadena Water and Power**

## **Renewable Portfolio Standard (RPS)**

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### ***Objectives***

PWP's RPS objectives are to reliably meet Pasadena's electric energy needs at **stable and reasonable rates** in an environmentally sensitive manner. This policy is effectuated through a strategic power resource plan that incorporates thermal resources, contracts, short-term purchases, and demand-side management programs in addition to renewable resources.

Specific RPS objectives include:

- Meet the state mandate to encourage renewable resources
- Obtain a diverse portfolio of cost-effective renewable resources
- Seek opportunities to develop local renewable resources
- Minimize adverse impact of acquiring new renewable energy resources on customer electric rates

### ***Qualified Renewable Resources***

- Renewable resources are defined as non-fossil fueled electric generating resources, including: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, hydroelectric generation, digester gas, municipal solid waste, landfill gas, ocean wave, ocean thermal, tidal current, or renewable distributed generation on the customer side of the meter
- Renewable components of system sales from other parties shall qualify to the extent they can be verified
- Pasadena's existing Hoover and Azusa hydroelectric entitlements shall qualify
- Cogeneration facilities using renewable fuels shall qualify
- New hydroelectric projects must be less than 30 MW to qualify
- Renewable resources may be located within the Western Electricity Coordinating Council region

### ***RPS Target***

- Resources used to meet PWP's retail electric energy sales will include a minimum of 10% renewable resources by year 2010 and 20% by year 2017

# **Pasadena Water and Power**

## **Renewable Portfolio Standard (RPS)**

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### ***Strategies for Meeting PWP's RPS Objectives***

- Procure new renewable resources through a combination of cost-effective long-term contracts, short-term purchases, and "Green Tickets"
- Seek resources which are cost effective and which will have minimal impact on customer energy costs
- Mitigate rate impact of renewable resource premiums by utilizing funds from Green Rate programs and a portion of Public Benefits Charges as available
- Renewable resources will be procured to the extent they fulfill unmet needs identified in PWP's Strategic Resource Plan and supplemental short-term resource needs. PWP will not terminate, abrogate, or otherwise end any existing long-term contract in order to meet the renewable target portion of its energy portfolio
- Replacing part of existing base-loaded resources for limited periods with renewable resources will be considered if such sales or exchanges meet resource portfolio economic, risk, and reliability objectives
- The Pasadena City Council shall consider rate impacts, including the cost of associated transmission to deliver the energy to PWP's service territory, when approving contracts for additional renewable resources

### ***Reporting RPS Performance***

Beginning with energy sold in Pasadena for the period from July 1, 2003 to June 30, 2004, PWP will report the following information to its customers annually:

- PWP's resource mix used for retail electric sales, by fuel type, including each type of renewable resource in a form that is consistent with the Power Content Label to the maximum extent possible
- PWP's revenues from "Green Rates" and the use of these revenues for renewable energy resource purchase and development
- PWP's expenditure of public benefits funds used for renewable energy and renewable resource development



# CITY OF RIVERSIDE

## CITY COUNCIL MEMORANDUM



HONORABLE MAYOR AND CITY COUNCIL

DATE: July 8, 2003

ITEM NO: 54

SUBJECT: RENEWABLES PORTFOLIO STANDARD

**BACKGROUND:**

The City of Riverside (City) must formally adopt a Renewable Power Portfolio Standard (RPS) to comply with Senate Bill 1078. SB 1078 expanded the Public Utilities Code to require Investor Owned Utilities (IOUs) to adhere to a legislated standard but enabled governing bodies of municipal utilities to determine their own RPS.

IOUs are required to obtain 20 percent of their power from renewable resources by 2017. However, the IOUs are only required to spend up to the total of their public benefit surcharge revenues on renewable resources. This amounts to 2.85 percent of each IOUs' customer charges. Large hydropower is excluded from the definition of renewable resources for the IOUs. Also, the IOU's are required to purchase their renewable energy from resources within California.

Riverside Public Utilities fails to see the logic in the exclusion of large hydropower, as it comes from existing facilities built to harness the power of water. Furthermore, Hoover Dam, a large hydropower facility of which Riverside is a long-term purchaser, only produces power when sufficient water can be released from the dam. Water management is the first priority of the Hoover Dam project; renewable power production is secondary. Also, the restriction to purchasing power within California only causes renewable energy prices to increase. Expanding resources to transmission interconnections throughout the western region allows Utilities to purchase environmentally sensitive renewable energy without being gouged by unreasonable market restrictions.

The City of Riverside Public Utilities Department (RPU) annually receives about \$5,000,000 of public benefits revenues. Riverside commits two-thirds of that amount to low income assistance, conservation programs and research projects. (Almost 3,000 low-income customers were assisted last year by this locally funded program.) Between \$1.5 million and \$1.75 million per year of Public Benefits Funds are already committed to supporting local renewable energy projects.

The philosophy is that renewable projects will be constructed within the City of Riverside and provide not only renewable energy, but also customer education and awareness. Renewable projects constructed, in development, or discussion include the Utilities Operations Center, La Sierra Metrolink Station, Autumn Ridge (Indiana) Apartments, Shamel Park, Islander Park, Hunt Park, the Casa Blanca Energy Demonstration Center, the City Hall 7<sup>th</sup> floor patio, another low-income housing project, Cal-Baptist University, and one in the Orangecrest area.

Currently, 12 percent of Riverside's retail energy requirements come from renewable resources. Most of these power purchases are funded directly from rates. The current renewable resource mix includes hydro, wind, landfill gas, photovoltaic, geothermal and green tags. The Utility spends \$12.8 million annually to reach that level. If large hydropower is included in Riverside's 2003 power portfolio, the level reaches 14.75 percent in renewable energy purchased and total costs are \$14.0 million. As can be seen, Riverside does not limit itself to the level of Public Benefits funds to reach the renewable commitment. RPU spends more than is

required by SB 1078, while still retaining rates significantly below the IOUs. One can see that Riverside is committed to renewables, or green power, by spending more than our Public Benefits funds.

The RPS proposes adopting a goal to reach a 20 percent level of renewable power in our energy portfolio by 2015, a more aggressive goal than that required of the IOUs. We will continue to report renewable efforts by presenting the "power content label" on the reverse side of the utility bill and on the web site. By statute, RPU does not include large hydro on the power content label, but it is cited in narrative form when room permits. Furthermore, this information is described in more detail in the annual Public Benefits Program report directly mailed to all customers each fall.

This policy will be reviewed bi-annually and revised as necessary. As always, Riverside Public Utilities will continue to strive for goals beyond what is minimally required to show the commitment to green power, while maintaining low rates, high power quality, and providing exceptional service.

This item was approved by the Board of Public Utilities at its regular meeting on June 6, 2003.

**FISCAL IMPACT:**

Renewable energy is usually more expensive than conventional resources. However, RPU has incorporated these costs into its long-term financial projections. Rates in Riverside, even with this level of renewable resources, should continue to be lower than rates in surrounding areas served by Southern California Edison. In addition, the RPS includes a limit that the addition of renewable energy resources will not cause systemwide rates to increase by over 5 percent from 2003 levels.

**ALTERNATIVES:**

The City could choose not to adopt a Renewable Portfolio Standard but would then not be in compliance with state regulations. Or, a different RPS could be developed. However, since the RPS will be reviewed every two years, it can be adjusted as necessary to meet the needs of Riverside customers.

**RECOMMENDATION:**

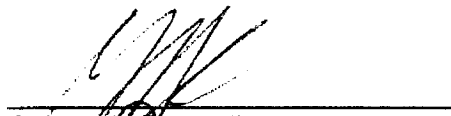
That the City Council adopt the Renewable Portfolio Standard proposed in this report.

Prepared by:



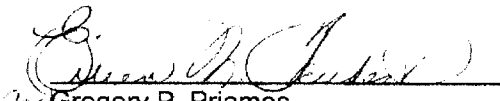
Thomas P. Evans  
Public Utilities Director

Approved by:




George A. Garvalho  
City Manager

Approved as to form:



Gregory P. Priamos  
City Attorney

Concurs with:



Paul C. Sundeen  
Finance Director

TPE/DHW/lau

Attachments: Renewables Power Portfolio Standard  
Board of Public Utilities minutes of June 6, 2003



### RENEWABLE PORTFOLIO STANDARD

Deputy Director Dave Wright explained the purpose, the goal, the qualifying resources, reporting requirements, timing of long-term resource additions, and the system rate impact of renewable portfolio standard and answered questions from the Board members with the assistance of Principal Power Program/Contracts Administrator LeeAnne Uhler. Mr. Wright also stated that Riverside is the first municipal utility to adopt a renewable portfolio standard.

Board Member Conrad Newberry, Jr., P.E., requested clarity on the statement regarding rate impacts – Staff will adjust the language to meet the concern before it is sent to the City Council.

The Board of Public Utilities approved and recommended that the City Council adopt the Renewable Portfolio Standard proposed in the report.

Motion – Newberry, Jr., P.E. Second – Tavaglione.

Ayes: Newberry, Jr., P.E., Hubbard, Gipson, Tavaglione, Gage, and Anderson

Noes: None

Abstain: None

Absent: Lalit Acharya

### SELECTION OF ENGINEERING CONSULTANTS FOR PLANNING, DESIGN, AND CONSTRUCTION MANAGEMENT OF THE RIVERSIDE CANAL REHABILITATION PROJECT

Principal Water Engineer Kevin Milligan gave the Public Utilities Board an updated presentation on the Riverside Canal project with photos of the canal where the rehabilitation is needed. Mr. Milligan informed the Board that staff wanted to add additional language to the RECOMMENDATION to state: "That the Board of Public Utilities approve and recommend that the City Council:

*Approve the expenditure of \$1,067,439 for engineering services.*

After questions were answered, the Board of Public Utilities approved and recommended that the City Council:

- 1) ***Approve the expenditure of \$1,067,439 for engineering services;***
- 2) Award contracts for engineering services to CH2Mhill and Tettemer & Associates for the planning, design, and construction management of the Riverside Canal Rehabilitation Project at a total cost not-to-exceed \$857,439 and \$210,000, respectively;
- 3) Authorize the City Manager, or his designee, to execute the necessary contract documents; and

**54-3**

- 4) Authorize the Public Utilities Director, or his designee, to amend the

RECEIVED

MAR - 3

PLUMAS-SIERRA RURAL ELECTRIC COOPERATIVE

Minutes of the Board of Directors

Thursday, October 23, 2003

10:30 a.m.

The regular monthly meeting of the Board of Directors of Plumas-Sierra Rural Electric Cooperative was held Thursday, October 23, 2003 at 73233 State Route 70 at 10:30 a.m.

Those directors in attendance:

Bill Robinson, President  
Anthony Martinez, Vice President  
Dorothy McDonald, Secretary/Treasurer  
Ole Olsen  
Dave Roberti  
Don Blickenstaff  
Tom Hammond

Also in attendance:

Bob Marshall, General Manager  
Nancy Bibb, Staff Assistant

- A. President Bill Robinson called the meeting to order at 10:30 a.m.
- B. Pledge of Allegiance
- C. Changes to the Agenda

The Board of Directors approved the additions to the Agenda of the purchase of wind testing towers and to discuss the purchase of a generator with a motion by Director Roberti and a second by Director Martinez. This passed unanimously.

- D. Accept Minutes as Mailed—August 27, 2003 and Minutes of the Credentials and Elections Committee and Minutes of the Meeting of the Board of Directors, September 13, 2003

With a motion from Director Roberti and a second from Director Olsen the Board of Directors voted unanimously to accept the minutes of the meeting of August 27, 2003.

Director Martinez made the motion and Director Olsen seconded it to accept the minutes of the meeting on September 13, 2003. This passed unanimously.

E. Public Forum/Consumer Correspondence

F—FYI (For Your Information)

F-1—Informational Items (Including Directors' Requests)

F-2—Matters Pertaining to the Board

Director Martinez requested that the cooperative be sent a copy of the Sarbonne/Oxley tape. He said that it had much of value for the Board on it.

- a. The date for the 2004 annual meeting was set for 9-11-04
- b. The Board authorized Christmas checks for board and staff
- c. The annual Christmas party will be December 12, 2003, at the Grizzly Grill beginning at 6:30 p.m.

G—Consent Calendar

G-1—Member Services/Satellite

The date for DirecTV consumers to hook up to the Reno channels has been moved to January or February.

G-2—Information Services/LocalNet

High speed Internet is live in Susanville and Portola will be next. We are keeping Darrel Housel busy with installs and the wind project.

G-3—Customer Service

H—Action Items

H-1—Operations

- a. The Board discussed the purchase of two additional wind Towers.

- b. Sandie Harris is leaving Plumas-Sierra on November 7, 2003

#### H-2—Financials

- a. Bob Marshall and the Board discussed the Financial Report. Director Hammond made the motion to accept it and Director Blickenstaff seconded it. The motion passed unanimously.
- b. Auditors for 2004

The Board's current auditor, Aldrich, Kilbride, and Tatone will come to the cooperative and make a presentation. The Board will get a presentation from at least one other auditor.

#### H-3—Manager's Report

- a. Herlong
- b. Golden State
- c. Generation

Bob Marshall discussed these items with the Board of Directors.

#### H-4—Renewable Portfolio Standard

Director Blickenstaff made the motion to accept this plan and Director Roberti seconded it. This passed unanimously.

#### H-5—Approval of schedule D-5, Residential Low Usage

This item was tabled.

#### H-6—C. O. S. Study

The Board of Directors reviewed the preliminary work done on the Cost of Service Study.

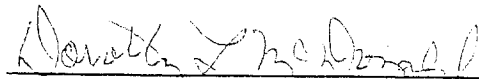
H-7—Rate Increases/Cost Reductions

The General Manager and the Board examined expenses to determine if sufficient reductions could be made to cancel the need for a rate increase. Since the rate increase is caused by an increase in the cost of power, it was impossible to make sufficient cuts to erase the need for the rate increase.

The Board of Directors approved revenue requirement increases for the rate classes as presented. Across two years the percentages are:

Residential	—13%
Irrigation	—7% with an alternative for wind
Small Commercial	—Average 7%-broken into three categories with varying percentages
Medium Power	A-2 7-8%
Large Power	A-6 7-8 %
Prisons	A-4 7-8%

There being no further business, the meeting was adjourned.

  
Dorothy McDonald, Secretary/Treasurer

# ***Plumas-Sierra Rural Electric Cooperative Renewable Portfolio Standard***

## ***Plumas-Sierra Rural Electric Cooperative RPS Objectives***

- Meet the intent of SB 1078 to encourage renewable resources, especially wind and photovoltaics
- Maintain reliable overall energy supply portfolio
- Strive for environmental improvement
- Acquire new renewable energy resources on customer electric rates
- Strive to reduce or stabilize electric rates

## ***Plumas-Sierra Rural Electric Cooperative Qualified RPS Resources***

- Renewable resources are defined as non-fossil fueled electric generating resources, including hydroelectric. These would include but may not be limited to any resource that meets the definition of “Eligible renewables” pursuant to section 398.4(h)(1) of California SB 1305, which sets for the requirements for power content labels:
  - Biomass and waste
  - Geothermal
  - Hydroelectric
  - Solar
  - Wind

## ***Plumas-Sierra Rural Electric Cooperative RPS Target***

- Plumas-Sierra Rural Electric Cooperative resource mix will have a minimum of 20% of renewable resources. Renewable resources are defined as non-fossil fueled electric generating resources, including hydroelectric.

## ***Strategies for Meeting Plumas-Sierra Rural Electric Cooperative’s RPS Objectives***

- Plumas-Sierra Rural Electric Cooperative is focusing on the development of wind power projects in the Pacific Northwest, inside NP15, and on the PSREC System. Due to the nature of wind farms, we expect these wind farms to come on in significant increments.

***Plumas-Sierra Rural Electric  
Cooperative  
Renewable Portfolio Standard (con't)***

***Reporting RPS Performance***

- Plumas-Sierra Rural Electric Cooperative will report in the annual power content label to be distributed to all its customers.
  - Expenditure of public benefits funds collected for renewable energy resource development
  - The resource mix by fuel type including each type of renewable resource

***Ongoing review of Plumas-Sierra Rural Electric Cooperative RPS***

- An ongoing five-year review standard of the RPS will address changes in the Plumas-Sierra Rural Electric Cooperative power portfolio including local generation versus market power purchases and potential changes in the renewable energy technologies.

# *Plumas-Sierra Rural Electric Cooperative Renewable Portfolio Standard*

## *California Legislative Mandates for Renewable Portfolio Standards*

SB 1078 was signed into law September 12, 2002. This law defines qualified renewable energy resources and sets forth the following renewable portfolio standard (RPS) for retail electric sellers other than municipal utilities:

- 20% of retail electric sales must be supplied by renewable resources by 12/31/17.
- Retail sellers must increase renewable supply by at least 1% per year until the 20% target is reached.

As a cooperative electric utility, Plumas-Sierra Rural Electric Cooperative is excluded from the bill, however the following requirements are spelled out in SB 1078 for consumer owned utilities.

- Each consumer owned board is responsible for implementing and enforcing a local RPS that "recognizes the Legislature's intent to encourage renewable resources, especially wind and photovoltaic, taking into consideration the effect on rates, reliability, financial resources and the goal of environmental improvement"
- Each Consumer owned utility must report annually to its customers
  - Expenditure of public benefits funds collected for renewable energy resource development; and,
  - The resource mix by fuel type including each type of renewable resource
- Each municipal utility governing board must define the terms of its RPS. This would include the determination of:
  - What qualifies as a renewable resource (whether or not to count large hydro projects), and
  - The percentage of the total energy resources that are to be renewable, and
  - How quickly you plan to meet that goal.

## **City of Riverside**

### **Renewables Power Portfolio Standard (RPS)**

#### **Purpose:**

This Renewables Power Portfolio Standard (RPS) represents Riverside Public Utilities' (RPU) commitment to renewable resource procurement consistent with the provisions of SB 1078 (2002), an act to add Sections 387, 390.1 and 399.25 to, and to add Article 16 (commencing with Section 399.11) to Chapter 2.3 of Part 1 of Division 1 of, the Public Utilities Code. SB 1078 provides that each governing body of a local publicly owned electric utility shall be responsible for implementing and enforcing a RPS that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.

#### **Goal:**

The public policy goal stated in the SB 1078 includes increasing California's reliance on renewable energy resources up to 20% to promote stable electricity prices, protect public health, improve environmental quality, stimulate sustainable economic development, create new employment opportunities, and reduce reliance on imported fuels.

In furtherance of SB 1078's expressed goal, RPU will increase its supply of electricity from "eligible" renewable resources until a target portfolio level of 20% is reached by December 31, 2015 ("Goal Target Date"), measured by the amount of energy procured for making retail sales of electricity. RPU's 2003 renewable resources baseline is equal to 14.75% of its retail energy needs comprised of resources including large hydro, which provides many of the tangible demonstrable benefits mentioned above. However, in the spirit of SB 1078, energy procurement from large hydro projects will be measured separately, therefore changing the 2003 baseline to 12%. By December 31, 2010, RPU will reach 15% and by December 31, 2015 will reach 20% eligible renewable resources contingent upon ongoing biannual reviews that address, but are not limited to, changes in RPU's power portfolio, changes in renewable energy technologies, legislative activities, and all other relevant issues.

#### **Qualifying Resources:**

Electricity produced from the following technologies constitute "eligible" renewable resources for purposes of this RPS: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, hydroelectric generation (including large hydro), digester gas, municipal solid waste, landfill gas, ocean wave, ocean thermal, tidal current, renewable components of system sales from other parties, green tags and renewable distributed generation on the customer side of the meter. Eligible renewable resources facilities can be located anywhere in the interconnected transmission system located in the west.

#### **Reporting Requirements:**

RPU will report annually to its customers (1) expenditures of Public Benefits funds collected for renewable energy resources development along with a description of programs, expenditures and expected or actual results, (2) the resource mix used to serve its retail customers by fuel type, including the contribution of each type of renewable energy resource through an annual Public Benefit Programs Report, and (3) total expenditures for renewable resources funded by Electric revenues due to ongoing support by our customer-owners for renewable power.

RPU will continue to provide a quarterly Power Content Label Report and Annual Report to its customers as required by SB 1305 (1997) to disclose information about energy resources used to generate retail electricity.

#### **Timing of Long-Term Resource Additions:**

Renewable resources will be procured to the extent they fulfill unmet needs identified in RPU's long-term resource procurement plan and RPU will not terminate, abrogate, or otherwise end any existing long-term non-renewable contract in order to meet the renewable target portion of its energy portfolio.

**System Rate Impact:**

The addition of renewable energy resources shall not cause RPU's system wide rates to increase by more than 5% from 2003 to the Goal Target Date.

# ***Roseville Electric Renewable Portfolio Standard***

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## **California Legislative Mandates for Renewable Portfolio Standards**

SB 1078 was signed into law September 12, 2002. This law defines qualified renewable energy resources and sets forth the following renewable portfolio standard (RPS) for retail electric sellers other than municipal utilities:

- 20% of retail electric sales must be supplied by renewable resources by 12/31/17.
- Retail sellers must increase renewable supply by at least 1% per year until the 20% target is reached.

As a municipal electric utility, Roseville Electric is excluded from the bill, however the following requirements are spelled out in SB 1078 for municipal electric utilities

- Each municipal governing board is responsible for implementing and enforcing a local RPS that “recognizes the Legislature's intent to encourage renewable resources, especially wind and photovoltaic, taking into consideration the effect on rates, reliability, financial resources and the goal of environmental improvement”
- Each municipal utility must report annually to its customers
  - Expenditure of public benefits funds collected for renewable energy resource development; and,
  - The resource mix by fuel type including each type of renewable resource
- Each municipal utility governing board must define the terms of its RPS. This would include the determination of:
  - what qualifies as a renewable resource (whether or not to count large hydro projects) and
  - the percentage of the total energy resources that are to be renewable, and
  - how quickly you plan to meet that goal.

***The Roseville Electric Renewable Portfolio Standard as described in the enclosed was approved by Roseville City Council on February 19, 2003***

# ***Roseville Electric Renewable Portfolio Standard***

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## ***Roseville Electric RPS Objectives***

- Meet the intent of SB 1078 to encourage renewable resources, especially wind and photovoltaics
- Maintain reliable overall energy supply portfolio
- Strive for environmental improvement
- Minimize adverse impact of acquiring new renewable energy resources on customer electric rates

## ***Roseville Electric Qualified RPS Resources***

- Renewable resources are defined as non-fossil fueled electric generating resources, including hydroelectric. These would include but may not be limited to any resource that meets the definition of “Eligible renewables” pursuant to section 398.4(h)(1) of California SB 1305, which sets for the requirements for power content labels:
  - Biomass and waste
  - Geothermal
  - Hydroelectric
  - Solar
  - Wind

## ***Roseville Electric RPS Target***

- Roseville Electric resource mix will have a minimum of 20% of renewable resources. Renewable resources are defined as non-fossil fueled electric generating resources, including hydroelectric.

## ***Strategies for Meeting Roseville’s RPS Objectives***

- Increase renewable resources in Roseville during the next five years by 5 megawatt, one of which may be sited locally as a component to the proposed Roseville Energy Park.

## ***Reporting RPS Performance***

- Roseville Electric will report in the annual power content label to be distributed to all Roseville Electric customers to its customers:
  - Expenditure of public benefits funds collected for renewable energy resource development
  - The resource mix by fuel type including each type of renewable resource.

## ***Ongoing Review of Roseville Electric RPS***

- An ongoing five-year review standard of the RPS will address changes in the Roseville Electric power portfolio including local generation versus market power purchases and potential changes in the renewable energy technologies

# **City of Santa Clara Silicon Valley Power Environmental Stewardship and Renewable Portfolio Standard Policy Statement**

## ***Introduction***

Section 387 of the Public Utilities Code of the State of California was amended by SB1078 in September 2002. This change in the Public Utility Code took effect on January 1, 2003. Section 387 requires each governing body of a local publicly owned electric utility to implement and enforce a Renewables Portfolio Standard (RPS). This standard is state-mandated to support the development of a diverse mix of energy for the state, including encouraging renewable resources. The RPS approved by the governing board is also to take into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement. In addition, publicly owned electric utilities are required to report on their fuel mix, including eligible renewable resources, and programs to customers on an annual basis. The full definitions of the standards for the renewables portfolio standard, reporting requirements and eligible renewable resources are detailed in Appendix A.

It is the policy of the City of Santa Clara to support a broad range of energy conservation, energy efficiency, electric technology, low income, and renewable generation programs, as described in the Public Benefits Program Policy Statement approved by City Council on May 12, 1998. The City of Santa Clara intends on continuing its support of this broad range of programs, thus encouraging wise use of energy resources, especially renewable energy generation.

It is also the policy of the City of Santa Clara, operating as Silicon Valley Power, to support the purchase and delivery of renewable generation as a part of its planned business for purchasing power for supply to all customers. Renewable generation shall be included in the utility portfolio of power provided to customers. These resources shall be cost-effective, reliable, sustainable, and part of the ongoing power purchase operations. SB1078 requires investor owned utilities to maintain a minimum of 20% of their power from eligible renewable resources by 2017 with 1% annual increases until that requirement is reached. More than 65% of SVP resources is currently derived from renewable resources including large hydropower facilities and 26% from eligible renewable (all renewable sources excepting large hydropower facilities). It is the intent of the City of Santa Clara to continue to support renewable resources. Generally, eligible renewable power supplies shall be available to Silicon Valley Power customers and not resold to other electric utilities or companies.

## ***Environmental Stewardship in Santa Clara***

The City of Santa Clara supports wise use of resources that effectively enhance environmental stewardship. In Silicon Valley Power environmental stewardship includes encouraging customers to use energy efficiently and without waste, as well as providing renewable generation resources through as many options as reasonable and economical. When given a choice between purchasing and or developing energy supply options, staff will give emphasis to all economic options that enhance environmental stewardship. This includes providing programs for customers to save energy at home and at work, as well as options for customers to opt-in to the purchase of renewable energy. Finally, this requires that when economic and reliability factors are equivalent, staff shall to choose to purchase renewable energy for Silicon Valley Power customers.

## ***Energy Efficiency and Conservation Programs***

In promoting an ethic of environmental stewardship, avoiding waste of resources is vital. In the electric utility, energy efficiency and conservation are clearly the most cost-effective methods to achieve this goal. The cost of avoiding a kilowatt of energy is significantly less than the cost of producing new, renewable resources. Therefore, staff shall first make every effort to implement cost-effective programs to encourage the wise use of energy by all customer classes. This effort will be primarily implemented through the Public Benefits Charge program under the guidelines approved by City Council on May 12, 1998.

## ***Renewable Energy***

Since 1975, the City of Santa Clara has taken a leading role in the development and promotion of the use of solar energy. That year, the City established the nation's first municipal solar utility. Under this program the City will supply, install and maintain solar water heating systems for residents and businesses within Santa Clara. The City has also installed solar energy equipment for its own facilities. The Community Recreation Center and the International Swim Center, both in Central Park, use solar heated water.

Silicon Valley Power shall also make every effort to provide a diverse mixture of energy resources that include renewable energy. When making new purchase power and facility construction decisions, renewable energy resources that are economic and reliable shall be given a priority. In addition, customers shall be provided with the option to install and/or purchase renewable energy at their home or business locations.

### **Definition of Renewable Power**

For purposes of the City of Santa Clara, renewable energy generation shall be defined to include the following:

1. Hydroelectric resources , including energy efficiency improvements at existing hydroelectric projects
2. Geothermal electric generation
3. Solar Electric (photovoltaic)
4. Wind generation
5. Solar hot water heating
6. Solar thermal generation
7. Any facility meeting the definition of "in-state renewable electricity generation technology" in State of California law, Section 383.5.

#### Current Power Mix and Customer Programs

Silicon Valley Power will continue take positive steps toward providing Santa Clara with the cleanest power possible. The Silicon Valley Power 2002 power mix includes more than twice the renewable energy resources as the state average, and continues to be one of the utilities with the most environmentally friendly energy in California.

The City of Santa Clara will continue to support renewable energy resources and a diverse electric supply mix. Programs that support the retail installation of renewable energy resources, such as the Neighborhood Solar Program or rebates for the installation of Solar Electric generation systems, will continue to be supported by the customers through the Public Benefits Program. In addition, the purchase and development of renewable power resources will be included in the utility's purchased power strategic program.

#### Reporting on Power Purchases and Customer Programs

Silicon Valley Power shall report on its energy efficiency and retail renewable generation programs and its power mix on an annual basis to customers, as outlined in Section 387 of the Public Utilities Code. These reports will be included in the already developed Annual Public Benefit Charge Status Report to City Council and as a part of the power content label. Included in the annual report to City Council shall be the following items:

- a description of all energy efficiency and renewable generation retail projects in the Public Benefit Program, including a summary of customer involvement, energy savings, and cost by program
- a listing of all power supplies, aggregated by fuel source and renewable eligibility status
- a summary of power by fuel types (by percentage and by total kilowatt hours sold)
- a discussion of the impact on customer rates and utility costs if additional eligible generation supplies are required
- an update to forecasts of future sources of fuel supply and recommended plans to increase the percentage of power from renewable sources.

## Appendix A

The following requirements on publicly owned electric utilities are made in Section 387:

- (a) Each governing body of a local publicly owned electric utility, as defined in Section 9604, shall be responsible for implementing and enforcing a renewables portfolio standard that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.
- (b) Each local publicly owned electric utility shall report, on an annual basis, to its customers, the following:
  - (1) Expenditures of public goods funds collected pursuant to Section 385 for renewable energy resource development. Reports shall contain a description of programs, expenditures, and expected or actual results.
  - (2) The resource mix used to serve its customers by fuel type. Reports shall contain the contribution of each type of renewable energy resource with separate categories for those fuels considered eligible renewable energy resources as defined by Section 399.12.

Section 399.12 defines renewable energy resources as follows:

399.12. For purposes of this article, the following terms have the following meanings:

"Eligible renewable energy resource" means an electric generating facility that is one of the following:

- (1) The facility meets the definition of "in-state renewable electricity generation technology" in Section 383.5.

"In-state renewable electricity generation technology" is defined in utility code 383.5 to mean biomass, solar thermal, photovoltaic, wind, geothermal, small hydropower of 30 megawatts or less, waste tire, digester gas, landfill gas, and municipal solid waste generation technologies, as described in the report, defined in paragraph (2), including any additions or enhancements thereto, that are produced in facilities located in this state and placed in operation after September 26, 1996, or that were operational prior to that date, and that are also certified under Section 292.2904 of Title 18 of the Code of Federal Regulations as a qualifying small power production facility either located in California, or that began selling electricity to a California electrical corporation prior to September 26, 1996, under a Standard Offer Power Purchase Agreement authorized by the commission.

- (2) A geothermal generation facility originally commencing operation prior to September 26, 1996, shall be eligible for purposes of adjusting a retail seller's baseline quantity of eligible renewable

energy resources except for output certified as incremental geothermal production by the Energy Commission, provided that the incremental output was not sold to an electrical corporation under contract entered into prior to September 26, 1996. For each facility seeking certification, the Energy Commission shall determine historical production trends and establish criteria for measuring incremental geothermal production that recognizes the declining output of existing steamfields and the contribution of capital investments in the facility or wellfield.

- (3) The output of a small hydroelectric generation facility of 30 megawatts or less procured or owned by an electrical corporation as of the date of enactment of this article shall be eligible only for purposes of establishing the baseline of an electrical corporation pursuant to paragraph (3) of subdivision (a) of Section 399.15. A new hydroelectric facility is not an eligible renewable energy resource if it will require a new or increased appropriation or diversion of water under Part 2 (commencing with Section 1200) of Division 2 of the Water Code.
- (4) A facility engaged in the combustion of municipal solid waste shall not be considered an eligible renewable resource unless it is located in Stanislaus County and was operational prior to September 26, 1996. Output from such facilities shall be eligible only for the purpose of adjusting a retail seller's baseline quantity of eligible renewable energy resources.

## RESOLUTION NO. 01-10-03

### Renewable Portfolio and Energy Efficiency Targets

**WHEREAS**, on August 15, 2001, the General Manager published a recommended Resource Plan designed to improve local reliability, reduce exposure to volatile markets, diversify the District's fuel mix and maintain District leadership in renewable resources and energy conservation; and

**WHEREAS**, since the District's last business plan update, developed in 1999, the utility industry has experienced dramatic change, resulting in, among other things, significant increases in price and volatility of both the electricity and natural gas markets; and

**WHEREAS**, in response to some of these changes, by Resolution No. 01-04-03, adopted April 5, 2001, this Board authorized changes to the District's former energy supply policy (superseding Resolution No. 97-02-04, adopted February 6, 1997 and Resolution No. 99-10-03, adopted October 7, 1997, to the extent that those policies were inconsistent with the change) and, instead, declared the following:

"The goal of the District is to provide a competitively priced energy supply to its retail load and to minimize the impact of market price fluctuations, unless the customer has contracted for different terms and conditions. New long-term supplies of energy will not be developed that are in excess of anticipated retail or committed wholesale obligations. New long-term resource obligations will be

evaluated on both cost and their ability to reduce the District's overall risk to market prices;" and

**WHEREAS**, consistent with the revised energy supply policy, by Resolution No. 01-06-08, adopted June 7, 2001, this Board authorized the General Manager to proceed with the design, procurement and construction of the first 500 MW of a new gas-fired generation plant (The Cosumnes Power Plant), together with common site and infrastructure work for an additional 500 MW at the Rancho Seco site; and

**WHEREAS**, by Resolution No. 01-06-02, also adopted June 7, 2001, this Board directed the General Manager to develop and implement strategies for the District's power supply such that the District's overall net income will meet a debt service coverage ratio (as defined in the District's master bond resolution) of at least 1.50 times with a 95 percent confidence level; and

**WHEREAS**, due in large part to the current market price volatility and price levels that make it unattractive for marketers to provide direct access service, by Resolution No. 01-04-02, adopted April 5, 2001, this Board authorized the General Manager to suspend the direct access program for a minimum of two years; and

**WHEREAS**, by Resolution No. 97-02-02, adopted February 7, 1997, this Board established a Fiscal Policy which continues to endure, which states that the District will maintain rates at least 5 percent below its competition and improve net operating revenue by reducing discretionary costs; and

**WHEREAS**, the District's current energy supply portfolio consists of approximately thirty-five percent (35%) natural gas-fired generation, and the first phase of the proposed 500 megawatt Cosumnes Power Plant will further increase the District's exposure to natural gas price fluctuations; and

**WHEREAS**, in order to reduce the risk of exposure to the short term market for electricity and natural gas, it is necessary for the District to develop additional resources whose costs are not correlated with the price of natural gas; and

**WHEREAS**, one means to accomplish this goal is to further diversify the District's resource portfolio by increasing the amount of energy that can be supplied through renewable resource alternatives, from the current seven percent (7%) to twenty percent (20%) in 2011; and

**WHEREAS**, the increased energy supplied from renewable resources also will provide quantifiable air quality benefits to the Sacramento community and the environment in general; and

**WHEREAS**, the District can further reduce its customers' exposure to electricity and natural gas prices by increasing its investment in energy efficiency measures that provide incremental load reductions through targeted incentive programs that do not require expansion of existing infrastructure; and

**WHEREAS**, the District has conducted numerous public workshops to both disseminate information to the public regarding the General Manager's Proposed Resource Plan and to receive public input about the plan and to

discuss its various components directly with the public, District staff and Board members; **NOW, THEREFORE,**

**BE IT RESOLVED BY THE BOARD OF DIRECTORS  
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT**

**Section 1.** After holding numerous public workshops concerning the General Manager's Proposed Resource Plan, receipt and consideration of public input, debate, and after due deliberation, this Board adopts the Resource Policy set forth in Section 2 below.

**Section 2.** That, in order to provide a diversified energy portfolio which will reduce District exposure to price volatility associated with electricity and natural gas, and to contribute to the continued improvement of air quality in the Sacramento air basin, the District will do the following:

- In Phase 1, by 2006, meet ten percent (10%) of all retail load obligation with non-hydro renewable energy, and set a Phase 2 target to increase that percentage to twenty percent (20%) by 2011; and
- Through new energy efficiency measures, reduce new capacity and energy requirements by the equivalent of 50 MWs between 2002 and 2006. Staff will develop Phase II (2011) targets prior to 2005.

**Section 3.** This Board finds that it is not reasonably foreseeable that approval of the Policy set forth herein will result in either a direct or indirect physical change in the environment. Moreover, specific future activities developed to implement the policy will, to the extent required by CEQA, be subject to environmental review by SMUD's Board of Directors. The Board

further finds that this policy does not constitute a project within the meaning of the California Environmental Quality Act. Therefore, no further analysis or preparation of an environmental document under CEQA is required.

Adopted: October 4, 2001

INTRODUCED BY DIRECTOR PATTERSON				
SECONDED BY DIRECTOR POSNER				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
PATTERSON	X			
SHIROMA				X
POSNER	X			
COTTRELL				X
KEAT	X			
CARR	X			
DAVIS	X			

**TURLOCK IRRIGATION DISTRICT**  
**RENEWABLE PORTFOLIO STANDARD**

**EFFECTIVE DATE**

The effective date for the District's Renewable Portfolio Standard shall be January 1, 2004.

**RENEWABLE RESOURCES**

For purposes of the District's Renewable Portfolio Standard, Renewable Resources shall include the following:

- Biomass
- Wind
- Photovoltaic
- Fuel Cells
- Small Hydro (less than 30 MW)
- Landfill Gas
- Ocean Thermal
- Ocean Wave
- Tidal Current
- Solar Thermal
- Geothermal
- Municipal Solid Waste
- Green Tags or Green Certificates

**ABOVE MARKET COSTS**

Above Market Costs shall be defined as the amount by which the estimated annual cost of a Renewable Resource exceeds the estimated annual cost of a non-renewable resource delivered at the same point for the same term. The Above Market Costs shall be determined by the District's Energy Resources Administration.

**RENEWABLE PORTFOLIO STANDARD TARGET**

The target for the District's Renewable Portfolio Standard shall be for 20% of annual retail electric sales in calendar year 2017 to be supplied by Renewable Resources.

**ANNUAL RENEWABLE PORTFOLIO STANDARD GOAL**

The annual goal of the District's Renewable Portfolio Standard shall be to increase the portion of the District's annual retail electric sales supplied by Renewable Resources by at least 1% each calendar year, beginning in 2005.

The actual procurement of Renewable Resources in each year need not exceed the Available Public Benefits Charge Funds. Available Public Benefits Charge Funds shall be defined as the total Public Benefits Charge funds available for funding Above Market Costs less the funds committed to Low Income programs, Energy Efficiency programs, and Research, Development, and Demonstration programs. The Renewable Portfolio Standard shall not require that the District procure Renewable Resources such that the Above Market Costs of Renewable Resources in a given year exceed the estimated Available Public Benefits Charge Funds.

#### **RENEWABLE PORTFOLIO STANDARD ANNUAL REPORTING**

The District shall report to customers annually on the Renewable Portfolio Standard progress by issuing a Power Content Label that identifies the percentage of retail electric sales that are supplied by Renewable Resources.

#### **RENEWABLE PORTFOLIO STANDARD ANNUAL REVIEW**

The District staff shall report annually to the District Board of Directors on the expenditures related to the Renewable Portfolio Standard as well as any recommended modifications to the Renewable Portfolio Standard.

## **RENEWABLE PORTFOLIO POLICY**

### **GENERAL POLICY STATEMENT:**

It is the intent of the District to comply with SB1078, enacted in 2002.

### **BACKGROUND:**

SB1078 requires that the District "enforce and implement" a renewable portfolio standard and that the District "recognize the intent of the Legislature to encourage renewable resources taking into account the potential effects of renewable goals on rates, reliability, financial resources and environmental improvement".

SB1078 also requires that the District report at least annually to its customers:

1. The amount of money spent on renewables from Public Benefits Funds.
2. The District's resource mix, by fuel type.
3. The renewable resource contribution to mix.
4. The amount of "eligible" renewable resource mix.

By reference to other legislation SB1078 defines "eligible" renewable as biomass, solar thermal, photovoltaic, wind, geothermal, small hydro of 30MW or less: and with certain restrictions, waste tire, digester gas, landfill gas, and municipal solid waste.

The notice provisions of SB1078 create the same dilemma as the notice provision of SB1305. The District maintains that all of its power needs are, from a legal perspective, met by hydroelectric generation that utilizes water from the Trinity River, even though it may be priced differently. Others do not share the District's belief and the issue has not been decided by a court of law. There is no available information on the ultimate source(s), from a physical perspective, of the energy sold by the District.

If the District were to acquire any type of power resource that offsets the District's existing resource, the District is prohibited, by law, from selling the offset amount. Given today's prices for various power resources, replacing the District's existing source of power with any alternative would significantly increase costs.

### **FINDINGS:**

The Board of Directors hereby finds that:

1. The TRD Act of 1955 promised the people of Trinity County certain rights to enough hydroelectric power, to meet the District's total power needs for the conceivable future.
2. Existing hydroelectric power is renewable.
3. Replacing the District's existing rights to Western power would be contrary to the intent of Congress in passing the TRD Act of 1955.
4. Replacing the District's existing rights to Western power with any other resource, including renewable resources, would cause the District's electric rates to significantly rise, causing undue hardship to District customers.
5. The construction of renewable energy resources will help California preserve its environment and help to develop a more diverse mix of power supplies.

Policy of the Board of Directors

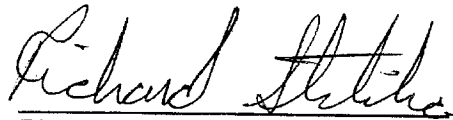
**IMPLEMENTATION:**

The Board hereby directs staff to consider only renewable resources to meet any District power needs beyond that which is available from the TRD Act of 1955.

To meet the notice provision of SB1078 and SB1305, the Board hereby directs staff to include the following statements on District bills for energy consumption:

In accordance with SB1305 and SB1078 you are hereby notified that all energy delivered to you by the District is the result of the Federal Trinity River Division Act of 1955. (69 STAT.710) In accordance with SB1078 you are hereby notified that none of the Public Benefit Funds are used to purchase renewable resources.

This policy shall be reviewed for possible amendments at least once annually.

  
Richard Stiliha, President



## Truckee Donner PUD Renewable Portfolio Standard

### PURPOSE:

TDPUD's policy regarding 2002 SB1078 – Renewable Portfolio Standard (RPS).

### BACKGROUND:

State Senate Bill 1078 (SB1078) was signed into law on September 12, 2002 and was effective January 1, 2003. The legislation modifies the California Public Utilities Code to include a specific renewable resource requirement for investor owned utilities (IOUs). The legislation also includes provisions that apply to publicly owned utilities. These provisions would include:

- Requirement that the governing body implement and enforce a renewable portfolio standard to encourage renewable resources
- Requirement that publicly owned utilities report annually to their customers the following
  - The amount of money spent on renewables from public benefit funds
  - The resource mix used to serve the customers (Truckee Donner Public Utility District already publishes a quarterly notice)
- Each public utility governing board must define the terms of its RPS. The terms would include:
  - What qualifies as a renewable resource (i.e. whether or not to count large hydroelectric projects (in excess of 30MW)
  - The percentage of the total energy resources that are to be renewable
  - The time frame in which to meet the "goal" of the defined standard

### Discussion points:

1. Although excluded for the purposes of the IOU's requirements under SB1078, TDPUD's future share in "large" hydroelectric projects is a valuable and critical component of the energy needs of the community. TDPUD's allocation of the Western Area Power Administration (WAPA) starts on January 1, 2005. This power is under a long term contract with the Department of Energy's Western Area Power Administration (WAPA). Much of this power is generated at Shasta, Folsom and New Melones Dams. None of these dams meet the CPUC's eligibility requirements for IOU's. However, due to the nature of the management of these facilities by the Federal Government for power, reclamation and environmental concerns, staff believes that a separation of large and small hydroelectric projects at a 30 MW level is arbitrary and ignores the unique nature of the resources provided by WAPA and the Department of Interior's Bureau of

Reclamation. Truckee Donner Public Utility District will include all hydroelectric regardless of size and location as meeting the District's renewable portfolio standard.

2. The District's location in the Sierra Pacific Power transmission control area differs from all of the other publically-owned utilities in California. TDPUD is a transmission dependent utility (TDU) electrically internal to Sierra Pacific Power's control area. The interconnection points to Sierra Pacific Power's control area are Summit Intertie (to CAISO), Alturas Line (to near COB), Gonder Substation near Utah (this is the current location of our existing contract deliveries and includes the Pacific Corp and LADWP control areas), and Midpoint Substation (to Idaho Power). This transmission configuration must be taken into account when trying to identify future renewable resources.
3. TDPUD is currently participating in a State grant-funded evaluation of the potential of CA's public utilities using renewable energy resources in California. Our participation in this project is to assist in evaluating the feasibility of using biomass electric generation in Truckee. There will be a 15 KW biomass demonstration plant installed in Truckee in the Spring of 2004. There will also be a feasibility study conducted to determine the potential value and economics of siting a 3-4 MW biomass plant in Truckee.

### **POLICY:**

The renewable portfolio standard of the Truckee Donner PUD will be as follows:

- **Qualifying RPS resources are defined as non-fossil fueled electric generating resources, including all hydroelectric resources:**
  - Geothermal including low-temperature(geothermal heat pumps)
  - Hydroelectric
  - Solar
  - Wind
  - Biomass and waste
  - Fuel cells
- **RPS Target:**
  - At such time that projected resources do not exceed projected demand, TDPUD will strive to include qualifying resources to meet projected demand.
  - Any purchase or construction of qualifying resources will be accomplished primarily with accumulated public benefit funds. Due to the expected magnitude of incremental resource requirements it is highly unlikely that TDPUD can secure qualifying resources at reasonable rates (i.e. 100 kw of demand is a very small unit of delivery). There is a potential within NCPA or UAMPS that TDPUD will be able to obtain a percentage ownership in a qualifying facility but probably not at the time that the projected resources are required.

- **Strategies for meeting RPS objectives:**

- TDPUD has implemented solar PV and geothermal heat pump demonstration projects utilizing public benefit funds. Housing stock is expected to increase 25% in the next 10 years. Demonstration and production solar and geothermal projects installed at a number of new homes will provide RPS qualifying resources.
- TDPUD organizes an annual tour of energy-smart solar homes which results in the installation in new small-scale renewable energy systems every year.
- Public benefit funds, when available, will be used to implement the demonstration projects and may be used to supplement the production projects.

- **Reporting RPS performance**

- TDPUD will continue to report to its customers the annual power content label.
- TDPUD will report the amount of public benefit funds expended for the development of qualifying RPS resources in conjunction with the annual power content label reporting



## **CITY OF UKIAH ELECTRIC UTILITY**

### **Renewable Portfolio Standard (RPS)**

#### **Introduction**

Section 387 of the California Public Utilities Code (PUC) was amended by Senate Bill 1078 (SB 1078) in September 2002. The change in the PUC was effective January 1, 2003.

SB 1078 outlines a statewide goal and requirement of Investor Owned Utilities to obtain 20% eligible renewable resources by 2017 with a 1% increase yearly until the goal is reached. As a municipal electric utility, the City of Ukiah is exempt from this requirement, however SB 1078 does outline requirements for municipalities in Section 387.

Section 387 of the PUC requires that the governing board of each municipal electric utility to implement and enforce a local Renewable Portfolio Standard (RPS) that "recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement." In addition, each municipal electric utility shall report annually to its customers:

- (a) expenditures of public goods funds collected for renewable energy resource development including a description of programs, expenditures, and expected or actual results; and,
- (b) the resource mix used to serve its customers by fuel type containing the contribution of each type of renewable energy resource with separate categories for those fuels considered eligible renewable energy resources.

SB 1078 recognizes the following generation as eligible renewable energy resources, provided the facilities are located within California:

- Biomass
- Solar Thermal
- Photovoltaic
- Wind
- Geothermal
- Small Hydroelectric - 30 megawatts or less (becomes ineligible if the facility is new and requires new or increased appropriation or diversion of water)

- Digester gas, or Landfill gas
- Ocean wave, Ocean thermal, or Tidal current

Although large hydroelectric power generation facilities (> 30MW) are non-fossil and renewable in general terms, SB 1078 considers large hydroelectric facilities ineligible as a renewable energy resource for baseline and new renewable consideration.

## City of Ukiah's Commitment to RPS

As a municipal electric utility, the City of Ukiah is not required to adopt any particular percentage goal for renewable resources. In addition, the City is not required to favor any particular technology, as SB 1078 allows each municipal utility to define "renewable resources" in terms that makes sense for the utility. The purpose of this document is to establish an RPS in the spirit of SB 1078 and to ensure that proper reporting procedures are in place.

### Environmental Stewardship

The City of Ukiah encourages energy efficiency and conservation through a broad range of programs that effectively enhance environmental stewardship. The City of Ukiah encourages customers to use energy wisely, as well as providing rebate programs for customers installing energy efficient appliances, weatherization products and customer-owned generation.

The City of Ukiah staff will continue to make every effort to implement and maintain cost effective programs to encourage wise use of energy. In addition, the City will, on an as needed basis, evaluate all new energy supply options that economically enhance environmental stewardship.

### Renewable Energy

SB 1078 requires that IOUs use renewable resources that are located within California. Municipal utilities are not restricted to this definition of renewable resources and the City of Ukiah believes that renewable resources located within the Western region provide similar environmental benefits. In addition, the City of Ukiah supports all hydroelectric generation as providing environmental benefit.

Therefore, for the purposes of the City of Ukiah, renewable energy generation shall be defined to include the following:

1. All Hydroelectric resources
2. Geothermal
3. Photovoltaic
4. Wind
5. Digester gas or Landfill gas

## 6. Ocean wave, Ocean thermal, or Tidal current

### Current Power Mix

The City of Ukiah has been very proactive in the use of renewable energy. The City of Ukiah currently exceeds the state mandate placed on Investor Owned Utilities of 20% renewable resources. Including large hydroelectric, the City of Ukiah's power mix exceeds 75% renewable resources.

	2001				2002				2003		
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
<b>Eligible Renewables</b>	52%	52%	71%	52%	53%	54%	55%	55%	52%	53%	52%
Biomass	1%	1%	0%	1%	>1%	1%	0%	0%	>1%	1%	<1%
Geothermal	50%	50%	70%	50%	51%	52%	53%	54%	50%	50%	50%
Sm. Hydro	2%	2%	1%	2%	>1%	1%	>1%	>1%	>1%	0%	<1%
Solar	0%	0%	0%	0%	0%	0%	0%	0%	0%	<1%	0%
Wind	0%	0%	0%	0%	0%	0%	0%	0%	0%	<1%	0%
<b>Coal</b>	6%	6%	0%	6%	4%	3%	2%	2%	3%	3%	4%
<b>Lg. Hydro</b>	27%	27%	27%	27%	26%	26%	31%	32%	23%	25%	32%
<b>Nat. Gas</b>	11%	11%	2%	11%	11%	13%	9%	8%	16%	14%	10%
<b>Nuclear</b>	5%	5%	0%	5%	5%	4%	3%	2%	5%	4%	3%
<b>Other</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

**Table 1**  
**City of Ukiah's Power Mix**

The City of Ukiah will continue to support renewable energy resources and continue to maintain a diverse electric supply mix. As demand increases and the need for additional generation is evaluated, the City of Ukiah will continue to consider the development and purchase of renewable power resources.

### Reporting

The City of Ukiah shall report to customers on an annual basis the resource mix used to serve its customers by fuel type. This information will be distributed through the Power Content Label.

In addition, the City of Ukiah will report to customers annually the expenditures of public benefits funds used for renewable energy resource development with a description of these programs. Currently the only program within the Public Benefits Fund that meets this description is the Photovoltaic Buy-down program where customers are encouraged to install solar systems to offset their energy usage using renewable technology. Funds are set aside to reimburse part of the customer's installation costs.